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SINCE FILE	TOTAL
ENTRY	SESSION
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CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

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CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

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=> s chitosan

L1 115917 CHITOSAN

=> s l1 and (radiation or irradiation or microwave)

L2 10733 L1 AND (RADIATION OR IRRADIATION OR MICROWAVE)

=> s l2 and (electrolyte or chloride)

L3 6604 L2 AND (ELECTROLYTE OR CHLORIDE)

=> s l3 and oligo?

16 FILES SEARCHED...

L4 3760 L3 AND OLIGO?

=> s l2 and microwave

L5 1800 L2 AND MICROWAVE

=> s l5 and (chloride or electrolyte)

L6 1176 L5 AND (CHLORIDE OR ELECTROLYTE)

=> s l5 and chloride

L7 1159 L5 AND CHLORIDE

=> s l5 and (sodium or potassium or calcium or iron or ferric)

23 FILES SEARCHED...

L8 1377 L5 AND (SODIUM OR POTASSIUM OR CALCIUM OR IRON OR FERRIC)

=> s l8 and acid?
15 FILES SEARCHED...
L9 1326 L8 AND ACID?

=> s l9 and (molecular(a)weight)
19 FILES SEARCHED...
L10 905 L9 AND (MOLECULAR(A) WEIGHT)

=> s l10 and (degree(a)polymeriz?)
L11 3 L10 AND (DEGREE(A) POLYMERIZ?)

=> dis l11 1-3 bib abs

L11 ANSWER 1 OF 3 USPATFULL on STN
AN 2004:334435 USPATFULL
TI Ink-jet recording material and method for preparing the same
IN Sakaguchi, Hiroshi, Tokyo, JAPAN
Tokunaga, Yukio, Tokyo, JAPAN
PI US 2004265514 A1 20041230
AI US 2004-874216 A1 20040624 (10)
PRAI JP 2003-184605 20030627
JP 2003-362495 20031022
DT Utility
FS APPLICATION
LREP BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1094

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB There are disclosed an ink-jet recording material comprising a support and at least one ink-receptive layer provided on the support, wherein at least one of the ink-receptive layers contains inorganic particles having an average secondary particle size of about 500 nm or less, a resin binder having a keto group as a resin binder and a compound having two or more primary amino groups in the molecule, and a method for preparing the same.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 2 OF 3 USPATFULL on STN
AN 2001:25546 USPATFULL
TI Support for imaging material
IN Tsubaki, Masayuki, Tokyo, Japan
Noda, Touru, Tokyo, Japan
PA Mitsubishi Paper Mills Limited, Tokyo, Japan (non-U.S. corporation)
PI US 6190781 B1 20010220
AI US 1999-233096 19990119 (9)
PRAI JP 1998-8868 19980120
JP 1999-2880 19990108
DT Utility
FS Granted
EXNAM Primary Examiner: Hess, Bruce H.
LREP Pillsbury Winthrop LLP
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1357

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The task of the present invention is to provide an excellent resin-coated paper type support for imaging materials using a paper as a

base which can provide imaging materials and prints made therefrom superior in visual gloss, cutting properties and curling properties. This task is attained by a support for imaging materials which comprises a paper mainly composed of natural pulp as a base, a resin layer (A) comprising a resin having film-formability coated on one side of the paper base on which an image forming layer is provided and a resin layer (B) mainly composed of a polyethylene resin coated on another side of the paper base, wherein the natural pulp has a fiber length of 0.60 mm or less, the paper base has a density of 1.05 g/cm³ or more, and the resin layer (B) mainly composed of a polyethylene resin is coated at 200 m/min or more.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 3 OF 3 USPATFULL on STN
AN 91:68862 USPATFULL
TI Moldable compositions of activated carbon and molded articles produced therefrom
IN Takeuchi, Tatsuro, Moriyama, Japan
Kameno, Masaaki, Kakogawa, Japan
PA Takeda Chemical Industries, Ltd., Osaka, Japan (non-U.S. corporation)
PI US 5043310 19910827
AI US 1990-467411 19900119 (7)
PRAI JP 1989-11458 19890119
DT Utility
FS Granted
EXNAM Primary Examiner: Garvin, Patrick P.; Assistant Examiner: Peebles, Brent M.
LREP Wegner, Cantor, Mueller & Player
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 518

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A moldable composition is disclosed which comprises activated carbon and a polysaccharide of natural origin in an amount of 0.1-10 parts by weight in relation to 100 parts by weight of the activated carbon.

There is further disclosed a process of producing molded articles of activated carbon using the composition.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s chitosan(s)oligo?
16 FILES SEARCHED...
L12 5892 CHITOSAN(S) OLIGO?

=> s l12 and microwave
L13 151 L12 AND MICROWAVE

=> s l13 and (electrolyte or chloride)
L14 113 L13 AND (ELECTROLYTE OR CHLORIDE)

=> s l14 and acid
L15 112 L14 AND ACID

=> s l15 and (degree(w)polymer?)
11 FILES SEARCHED...
L16 0 L15 AND (DEGREE(W) POLYMER?)

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=> s l15 and (degree(s)polymer?)
11 FILES SEARCHED...
L17      90 L15 AND (DEGREE(S) POLYMER?)

=> s l17 and Da
L18      48 L17 AND DA

=> dis l18 1-48 bib abs

L18 ANSWER 1 OF 48 IFIPAT COPYRIGHT 2008 IFI ON STN
AN      11439913 IFIPAT;IFIUDB;IFICDB
TI      LOW MOLECULAR WEIGHT CHITOSAN OLIGOSACCHARIDES AND
ITS PREPARATION METHOD
INF     Li; Pengcheng, Shandong, CN
Liu; Song, Shandong, CN
Xing; Rong, Shandong, CN
Yu; Huahua, Shandong, CN
IN      Li Pengcheng (CN); Liu Song (CN); Xing Rong (CN); Yu Huahua (CN)
PAF     INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES, Shandong, 266071, CN
PA      INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES CN
PPA     Institute of Oceanology Chinese Academy of Sciences CN (Probable)
AG      SMITH, GAMBRELL & RUSSELL, 1850 M STREET, N.W., SUITE 800, WASHINGTON,
DC, 20036, US
PI      US 2007089978 A1 20070426
AI      US 2003-560296 20031008
WO 2003-CN847 20031008
20051212 PCT 371 date
20051212 PCT 102(e) date
PRAI    CN 2003-138817 20030716
FI      US 2007089978 20070426
DT      Utility; Patent Application - First Publication
FS      CHEMICAL
APPLICATION
ED      Entered STN: 26 Apr 2007
Last Updated on STN: 7 May 2007
CLMN    11
GI      7 Figure(s).
FIG. 1 is a FTIR spectrum of chitosan.
FIG. 2 is a FTIR spectrum of low molecular weight chitosan
oligosaccharides obtained under acid solvent containing
NaCl.
FIG. 3 is a FTIR spectrum of low molecular weight chitosan
oligosaccharides obtained under acid solvent containing
KCl.
FIG. 4 is a FTIR spectrum of low molecular weight chitosan
oligosaccharides obtained under acid solvent containing
CaCl2.
FIG. 5 is a FTIR spectrum of low molecular weight chitosan
oligosaccharides obtained under pure acid solvent.
FIG. 6 is a 1H NMR spectrum of low molecular weight chitosan
oligosaccharides.
FIG. 7 is a characteristic structure of chitosan
oligosaccharides.
AB      The present invention relates to low molecular weight chitosan
oligosaccharides and its preparation method. Chitosan
oligosaccharides were obtained under microwave
irradiation assisted the electrolyte. The method of preparing
chitosan oligosaccharides was described as follows:
acid solvent containing electrolyte was added to
chitosan. The reaction was performed at 480800 W for 312 min.
After irradiation ceased, the reaction liquid was cooled to room

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temperature. Then the solution was adjusted to neutrality with 110 M NaOH or KOH and obtained the pale yellow floc. The processes of precipitation, filtering, desiccation and crushing are settled sequentially. Finally, chitosan oligosaccharides were obtained. Method of the present invention makes chitosan degrade to water-soluble chitosan oligosaccharides and it makes some inert substance become active. The method of the present invention can cut down energy consumption, decrease pollution and save time and raw materials. It has applying perspective of industry and potentiality of extensive market.

CLMN 11 7 Figure(s).

FIG. 1 is a FTIR spectrum of chitosan.

FIG. 2 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under acid solvent containing NaCl.

FIG. 3 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under acid solvent containing KCl.

FIG. 4 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under acid solvent containing CaCl₂.

FIG. 5 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under pure acid solvent.

FIG. 6 is a ¹H NMR spectrum of low molecular weight chitosan oligosaccharides.

FIG. 7 is a characteristic structure of chitosan oligosaccharides.

L18 ANSWER 2 OF 48 USPATFULL on SIN

AN 2007:342045 USPATFULL

TI Anti-scarring drug combinations and use thereof

IN Hunter, William L., Vancouver, CANADA

Toleikis, Philip M., Vancouver, CANADA

Gravett, David M., Vancouver, CANADA

Grau, Daniel S., Arlington, MA, UNITED STATES

Borisy, Alexis, Arlington, MA, UNITED STATES

Keith, Curtis T., Boston, MA, UNITED STATES

Auspitz, Benjamin A., Cambridge, MA, UNITED STATES

Nichols, M. James, Boston, MA, UNITED STATES

Jost-Price, Edward Roydon, West Roxbury, MA, UNITED STATES

Serbedzija, George N., Sudbury, MA, UNITED STATES

PI US 2007299043 A1 20071227

AI US 2007-732808 A1 20070404 (11)

RLI Continuation-in-part of Ser. No. US 2006-542185, filed on 3 Oct 2006, PENDING

PRAI US 2005-723053P 20051003 (60)

DT Utility

FS APPLICATION

LREP CLARK & ELBING LLP, 101 FEDERAL STREET, BOSTON, MA, 02110, US

CLMN Number of Claims: 14

ECL Exemplary Claim: 1

DRWN 17 Drawing Page(s)

LN.CNT 37332

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides devices or implants that comprise anti-scarring drug combinations, methods or making such devices or implants, and methods of inhibiting fibrosis between the devices or implants and tissue surrounding the devices or implants. The present invention also provides compositions that comprise anti-fibrotic drug combinations, and their uses in various medical applications including the prevention of surgical adhesions, treatment of inflammatory

arthritis, treatment of scars and keloids, the treatment of vascular disease, and the prevention of cartilage loss.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 3 OF 48 USPATFULL on SIN
AN 2007:291134 USPATFULL
TI COMPOSITIONS AND METHODS FOR TREATING DIVERTICULAR DISEASE
IN Hunter, William L., Vancouver, CANADA
Tolakis, Philip M., Vancouver, CANADA
Gravett, David M., Vancouver, CANADA
Avelar, Rui, Vancouver, CANADA
Guan, Dechi, Vancouver, CANADA
PA ANGIOTECH INTERNATIONAL AG, Zug, SWITZERLAND (non-U.S. corporation)
PI US 2007254833 A1 20071101
AI US 2007-775816 A1 20070710 (11)
RLI Continuation of Ser. No. US 2005-129763, filed on 12 May 2005, GRANTED,
Pat. No. US 7241736 Continuation-in-part of Ser. No. US 2004-986230,
filed on 10 Nov 2004, PENDING
PRAI US 2004-586861P 20040709 (60)
US 2004-578471P 20040609 (60)
US 2003-524023P 20031120 (60)
US 2003-523908P 20031120 (60)
US 2003-518785P 20031110 (60)
DT Utility
FS APPLICATION
LREP BRIAN R. WOODWORTH, 275 N. FIELD DRIVE, DEPT. NLEG BLDG H-1, LAKE
FOREST, IL, 60045-2579, US
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN 15 Drawing Page(s)
LN.CNT 18500

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Agents, compositions, and implants are provided herein for treating diverticular disease (e.g., diverticulosis and diverticulitis). In particular, fibrosis-inducing agents, hemostatic agents, and/or anti-infective agents, or compositions containing one or more of these agents are provided for use in methods for treating diverticular disease.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 4 OF 48 USPATFULL on SIN
AN 2007:237758 USPATFULL
TI Anti-scarring drug combinations and use thereof
IN Hunter, William L., Vancouver, CANADA
Tolakis, Philip M., Vancouver, CANADA
Gravett, David M., Vancouver, CANADA
Grau, Daniel S., Arlington, MA, UNITED STATES
Borisy, Alexis, Arlington, MA, UNITED STATES
Keith, Curtis T., Boston, MA, UNITED STATES
Auspitz, Benjamin A., Cambridge, MA, UNITED STATES
Nichols, M. James, Boston, MA, UNITED STATES
Jost-Price, Edward Roydon, West Roxbury, MA, UNITED STATES
Serbedzija, George N., Sudbury, MA, UNITED STATES
PI US 2007208134 A1 20070906
AI US 2006-542185 A1 20061003 (11)
PRAI US 2005-723053P 20051003 (60)
DT Utility
FS APPLICATION
LREP CLARK & ELBING LLP, 101 FEDERAL STREET, BOSTON, MA, 02110, US

CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN 17 Drawing Page(s)
LN.CNT 37771

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides devices or implants that comprise anti-scarring drug combinations, methods or making such devices or implants, and methods of inhibiting fibrosis between the devices or implants and tissue surrounding the devices or implants. The present invention also provides compositions that comprise anti-fibrotic drug combinations, and their uses in various medical applications including the prevention of surgical adhesions, treatment of inflammatory arthritis, treatment of scars and keloids, the treatment of vascular disease, and the prevention of cartilage loss.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 5 OF 48 USPATFULL on STN
AN 2007:236812 USPATFULL
TI Tear and abrasion resistant expanded material and reinforcement
IN Scanlon, John James, Wilmington, DE, UNITED STATES
Scanlon, Catherine Ann, Wilmington, DE, UNITED STATES
PI US 2007207186 A1 20070906
AI US 2007-713361 A1 20070303 (11)
PRAI US 2006-779128P 20060304 (60)
DT Utility
FS APPLICATION
LREP John J. Scanlon, 1308 Hillside Blvd, Wilmington, DE, 19803, US
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN 11 Drawing Page(s)
LN.CNT 7752

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is a more durable expanded material that enables thinner wall thicknesses and a more flexible reinforcement suitable for stenting. The present invention is especially useful in the construction of grafts, stents, and stent-grafts which are used, for example, in repairing or replacing blood vessels that are narrowed or occluded by disease, aneurismal blood vessels, or other medical treatments. The inventive material and configurations allow expansion or contraction in size or adjustment in size in an incremental manner so that the optimum size, shape, and fit with other objects can be obtained. The present invention is also optionally capable of more accurately delivering one or more active ingredients such as drugs over longer periods of time. The present invention optionally includes surface modifications and additives that increase the surface adhesion of active ingredients, coatings, or combinations thereof. Finally, the present invention optionally includes growing cells on the inventive material so that the expanded material, reinforcement, or combinations thereof are useful, for example, in producing lab-grown blood vessels or organs.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 6 OF 48 USPATFULL on STN
AN 2007:170809 USPATFULL
TI Water-soluble compound
IN Tuszyński, Jack, Edmonton, CANADA
Greenwald, Howard J., Rochester, NY, UNITED STATES
Curry, Stephen H., Rochester, NY, UNITED STATES
Goss, Kendrick, Brighton, MA, UNITED STATES
PI US 2007149496 A1 20070628

AI US 2004-923615 A1 20040820 (10)
RLI Continuation-in-part of Ser. No. US 2004-878905, filed on 28 Jun 2004,
PENDING Continuation-in-part of Ser. No. US 2004-808618, filed on 24 Mar
2004, PENDING Continuation-in-part of Ser. No. US 2004-867517, filed on
14 Jun 2004, PENDING
PRAI US 2003-516134P 20031031 (60)
DT Utility
FS APPLICATION
LREP Michael L. Weiner, Technology Innovations, Suite 215, 150 Lucius Godon
Drive, West Henrietta, NY, 14586, US
CLMN Number of Claims: 97
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 11268
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A water-soluble magnetic anti-mitotic compound with a water-solubility
of at least 100 micrograms per milliliter, a molecular weight of at
least 150 grams per mole, a mitotic index factor of at least 10 percent,
a positive magnetic susceptibility of at least 1,000+10.sup.-6
cgs, and a magnetic moment of at least 0.5 bohr magnetrons, wherein said
compound is comprised of at least 7 carbon atoms and at least one
inorganic atom with a positive magnetic susceptibility of at least
200+10.sup.-6 cgs.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 7 OF 48 USPATFULL on SIN
AN 2007:106580 USPATFULL
TI Water-soluble compound
IN Tuszyński, Jack A., Edmonton, CANADA
Greenwald, Howard J., East Rochester, NY, UNITED STATES
Curry, Stephen H., Rochester, NY, UNITED STATES
Goss, Kendrick, Brighton, MA, UNITED STATES
PI US 2007092549 A1 20070426
AI US 2005-63441 A1 20050223 (11)
RLI Continuation of Ser. No. US 2004-923615, filed on 20 Aug 2004, PENDING
Continuation-in-part of Ser. No. US 2004-808618, filed on 24 Mar 2004,
PENDING Continuation-in-part of Ser. No. US 2004-867517, filed on 14 Jun
2004, PENDING Continuation-in-part of Ser. No. US 2004-878905, filed on
28 Jun 2004, PENDING
PRAI US 2003-516134P 20031031 (60)
DT Utility
FS APPLICATION
LREP BUCHANAN, INGERSOLL & ROONEY PC, POST OFFICE BOX 1404, ALEXANDRIA, VA,
22313-1404, US
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 11303
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A water-soluble magnetic anti-mitotic compound with a water-solubility
of at least 100 micrograms per milliliter, a molecular weight of at
least 150 grams per mole, a mitotic index factor of at least 10 percent,
a positive magnetic susceptibility of at least 1,000+10.sup.-6
cgs, and a magnetic moment of at least 0.5 bohr magnetrons, wherein said
compound is comprised of at least 7 carbon atoms and at least one
inorganic atom with a positive magnetic susceptibility of at least
200+10.sup.-6 cgs.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 8 OF 48 USPATFULL on STN
 AN 2007:104016 USPATFULL
 TI Low molecular weight chitosan oligosaccharides and
 its preparation method
 IN Li, Pengcheng, Shandong, CHINA
 Xing, Rongge, Shandong, CHINA
 Liu, Song, Shandong, CHINA
 Yu, Huahua, Shandong, CHINA
 PA INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES, Shandong, CHINA,
 266071 (non-U.S. corporation)
 PI US 2007089978 A1 20070426
 AI US 2003-560296 A1 20031008 (10)
 WO 2003-CN847 20031008
 20051212 PCT 3/1 date
 PRAI CN 2003-138817 20030716
 DT Utility
 FS APPLICATION
 LREP SMITH, GAMBRELL & RUSSELL, 1850 M STREET, N.W., SUITE 800, WASHINGTON,
 DC, 20036, US
 CLMN Number of Claims: 11
 ECL Exemplary Claim: 1
 DRWN 3 Drawing Page(s)
 LN.CNT 395
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB The present invention relates to low molecular weight chitosan
 oligosaccharides and its preparation method. Chitosan
 oligosaccharides were obtained under microwave
 irradiation assisted electrolyte. The method of preparing
 chitosan oligosaccharides was described as follows:
 acid solvent containing electrolyte was added to
 chitosan. The reaction was performed at 480.about.800 W for
 3.about.12 min. After irradiation ceased, the reaction liquid was cooled
 to room temperature. Then the solution was adjusted to neutrality with
 1.about.10 M NaOH or KOH and obtained the pale yellow floc. The
 processes of precipitation, filtering, desiccation and crushing are
 settled sequentially. Finally, chitosan
 oligosaccharides were obtained. Method of the present invention
 makes chitosan degrade to water-soluble chitosan
 oligosaccharides and it makes some inert substance become
 active. The method of the present invention can cut down energy
 consumption, decrease pollution and save time and raw materials. It has
 applying perspective of industry and potentiality of extensive market.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 9 OF 48 USPATFULL on STN
 AN 2007:30854 USPATFULL
 TI Water-soluble compound
 IN Tuszyński, Jack A., Edmonton, CANADA
 Greenwald, Howard J., East Rochester, NY, UNITED STATES
 Curry, Stephen H., Rochester, NY, UNITED STATES
 Goss, Kendrick, Brighton, MA, UNITED STATES
 PI US 2007027129 A1 20070201
 AI US 2005-64247 A1 20050223 (11)
 RLI Continuation of Ser. No. US 2004-923615, filed on 20 Aug 2004, PENDING
 Continuation-in-part of Ser. No. US 2004-808618, filed on 24 Mar 2004,
 PENDING Continuation-in-part of Ser. No. US 2004-867517, filed on 14 Jun
 2004, PENDING Continuation-in-part of Ser. No. US 2004-878905, filed on
 28 Jun 2004, PENDING
 PRAI US 2003-516134P 20031031 (60)
 DT Utility

FS APPLICATION
LREP BUCHANAN, INGERSOLL & ROONEY PC, POST OFFICE BOX 1404, ALEXANDRIA, VA,
22313-1404, US
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 11412
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A water-soluble magnetic anti-mitotic compound with a water-solubility
of at least 100 micrograms per milliliter, a molecular weight of at
least 150 grams per mole, a mitotic index factor of at least 10 percent,
a positive magnetic susceptibility of at least 1,000+10.sup.-6
cgs, and a magnetic moment of at least 0.5 bohr magnetrons, wherein said
compound is comprised of at least 7 carbon atoms and at least one
inorganic atom with a positive magnetic susceptibility of at least
200+10.sup.-6 cgs.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 10 OF 48 USPATFULL on STN
AN 2007:17006 USPATFULL
TI Steroid analogs and characterization and treatment methods
IN Reading, Christopher L., San Diego, CA, UNITED STATES
Frincke, James M., San Diego, CA, UNITED STATES
Dowding, Charles, San Diego, CA, UNITED STATES
PI US 2007014719 A1 20070118
AI US 2005-241670 A1 20050929 (11)
PRAI US 2004-614869P 20040929 (60)
DT Utility
FS APPLICATION
LREP HOLLIS-EDEN PHARMACEUTICALS, INC., 4435 EASTGATE MALL, SUITE 400, SAN
DIEGO, CA, 92121, US
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 24267

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods to characterize exemplified compounds
such as 3 β , 17 β -dihydroxyandrost-1,5,11-triene and 3 β ,
17 β -dihydroxy-17 α -ethynylandrost-1,5,11-triene and to the use
of described compounds to ameliorate or treat a condition such as
thrombocytopenia, inflammation or other exemplified conditions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 11 OF 48 USPATFULL on STN
AN 2007:12286 USPATFULL
TI Medical device with low magnetic susceptibility
IN Wang, Xingwu, Wellsville, NY, UNITED STATES
Greenwald, Howard J., Rochester, NY, UNITED STATES
PI US 2007010702 A1 20070111
AI US 2005-171761 A1 20050630 (11)
RLI Continuation-in-part of Ser. No. US 2004-887521, filed on 7 Jul 2004,
PENDING Continuation-in-part of Ser. No. US 2004-867517, filed on 14 Jun
2004, PENDING Continuation-in-part of Ser. No. US 2004-810916, filed on
26 Mar 2004, GRANTED, Pat. No. US 6846985 Continuation-in-part of Ser.
No. US 2004-808618, filed on 24 Mar 2004, PENDING Continuation-in-part
of Ser. No. US 2004-786198, filed on 25 Feb 2004, PENDING
Continuation-in-part of Ser. No. US 2004-780045, filed on 17 Feb 2004,
GRANTED, Pat. No. US 7091412 Continuation-in-part of Ser. No. US
2003-747472, filed on 29 Dec 2003, PENDING Continuation-in-part of Ser.

No. US 2003-744543, filed on 22 Dec 2003, ABANDONED Continuation-in-part of Ser. No. US 2003-442420, filed on 21 May 2003, GRANTED, Pat. No. US 6914412 Continuation-in-part of Ser. No. US 2003-409505, filed on 8 Apr 2003, GRANTED, Pat. No. US 6815609

DT Utility
FS APPLICATION
LREP CURATOLO SIDOTI CO., LPA, 24500 CENTER RIDGE ROAD, SUITE 280, CLEVELAND, OH, 44145, US
CLMN Number of Claims: 315
ECL Exemplary Claim: 1
DRWN 54 Drawing Page(s)
LN.CNT 18747

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An assembly that contains a medical device and biological material within which the medical device is disposed. The assembly has a direct or alternating current magnetic susceptibility within the range of from about plus 1+10.sup.-2 centimeter-gram-seconds to about minus 1+10.sup.-2 centimeter-gram-seconds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 12 OF 48 USPATFULL on STN

AN 2006:174046 USPATFULL
TI Medical implants and anti-scarring agents
IN Hunter, William L., Vancouver, CANADA
Gravett, David M., Vancouver, CANADA
Tolakis, Philip M., Vancouver, CANADA
Maiti, Arpita, Vancouver, CANADA
Signore, Pierre E., Vancouver, CANADA
Liggins, Richard T., Coquitlam, CANADA
PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
PI US 2006147492 A1 20060706
AI US 2006-343809 A1 20060131 (11)
RLI Continuation of Ser. No. US 2004-986231, filed on 10 Nov 2004, PENDING
PRAI US 2004-586861P 20040709 (60)
US 2004-578471P 20040609 (60)
US 2003-526541P 20031203 (60)
US 2003-525226P 20031124 (60)
US 2003-523908P 20031120 (60)
US 2003-524023P 20031120 (60)
US 2003-518785P 20031110 (60)

DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE 6300, SEATTLE, WA, 98104-7092, US
CLMN Number of Claims: 52
ECL Exemplary Claim: 1
DRWN 28 Drawing Page(s)
LN.CNT 56233

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Implants are used in combination with an anti-scarring agent in order to inhibit scarring that may otherwise occur when the implant is placed within an animal. The agent may be any suitable anti-scarring agent, e.g., a cell cycle inhibitor, and may be used in conjunction with a second pharmaceutical agent, e.g., an antibiotic. Suitable implants include intravascular implants, a vascular graft or wrap implant, an implant for hemodialysis access, an implant that provides an anastomotic connection, ventricular assist implant, a prosthetic heart valve implant, an inferior vena cava filter implant, a peritoneal dialysis catheter implant, a central nervous system shunt, an intraocular lens, an implant for glaucoma drainage, a penile implant, an endotracheal

tube, a tracheostomy tube, a gastrointestinal device, and a spinal implant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 13 OF 48 USPATFULL on STN
AN 2006:173926 USPATFULL
TI Water-soluble compound
IN Tuszyński, Jack A., Edmonton, CANADA
Greenwald, Howard J., East Rochester, NY, UNITED STATES
Curry, Stephen H., Rochester, NY, UNITED STATES
Goss, Kendrick, Brighton, MA, UNITED STATES
PI US 2006147371 A1 20060706
AI US 2005-63439 A1 20050223 (11)
RLI Continuation of Ser. No. US 2004-923615, filed on 20 Aug 2004, PENDING
Continuation-in-part of Ser. No. US 2004-808618, filed on 24 Mar 2004,
PENDING Continuation-in-part of Ser. No. US 2004-867517, filed on 14 Jun
2004, PENDING Continuation-in-part of Ser. No. US 2004-878905, filed on
28 Jun 2004, PENDING
PRAI US 2003-516134P 20031031 (60)
DT Utility
FS APPLICATION
LREP Buchanan Ingersoll PC, Burns, Doane, Swecker & Mathis, P.O. Box 1404,
Alexandria, VA, 22313-1404, US
CLMN Number of Claims: 83
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 11463

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A water-soluble magnetic anti-mitotic compound with a water-solubility
of at least 100 micrograms per milliliter, a molecular weight of at
least 150 grams per mole, a mitotic index factor of at least 10 percent,
a positive magnetic susceptibility of at least $1,000 \times 10^{-6}$ cgs,
cgs, and a magnetic moment of at least 0.5 bohr magnetrons, wherein said
compound is comprised of at least 7 carbon atoms and at least one
inorganic atom with a positive magnetic susceptibility of at least
 200×10^{-6} cgs.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 14 OF 48 USPATFULL on STN
AN 2006:166501 USPATFULL
TI Methods and apparatus for treatment of aneurysmal tissue
IN Brin, David S., Santa Rosa, CA, UNITED STATES
Tseng, David, Santa Rosa, CA, UNITED STATES
PA Medtronic Vascular, Inc., Santa Rosa, CA, UNITED STATES (U.S.
corporation)
PI US 2006141006 A1 20060629
AI US 2006-358653 A1 20060221 (11)
RLI Division of Ser. No. US 2003-423192, filed on 25 Apr 2003, PENDING
DT Utility
FS APPLICATION
LREP MEDTRONIC VASCULAR, INC., IP LEGAL DEPARTMENT, 3576 UNOCAL PLACE, SANTA
ROSA, CA, 95403, US
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 823
AB The present invention encompasses methods and apparatus for aiding
aneurysm repair.

L18 ANSWER 15 OF 48 USPATFULL on STN
 AN 2005:318834 USPATFULL
 TI Compositions and methods for treating diverticular disease
 IN Hunter, William L., Vancouver, CANADA
 Toleikis, Philip M., Vancouver, CANADA
 Gravett, David M., Vancouver, CANADA
 Avelar, Rui, Vancouver, CANADA
 PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
 PI US 2005277577 A1 20051215
 US 7241736 B2 20070710
 AI US 2005-129763 A1 20050512 (11)
 RLI Continuation-in-part of Ser. No. US 2004-986230, filed on 10 Nov 2004,
 PENDING
 PRAI US 2004-586861P 20040709 (60)
 US 2004-578471P 20040609 (60)
 US 2003-523908P 20031120 (60)
 US 2003-524023P 20031120 (60)
 US 2003-518785P 20031110 (60)
 DT Utility
 FS APPLICATION
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
 6300, SEATTLE, WA, 98104-7092, US
 CLMN Number of Claims: 56
 ECL Exemplary Claim: 1
 DRWN 15 Drawing Page(s)
 LN.CNT 10081

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Agents, compositions, and implants are provided herein for treating
 diverticular disease (e.g., diverticulosis and diverticulitis). In
 particular, fibrosis-inducing agents, hemostatic agents, and/or
 anti-infective agents, or compositions containing one or more of these
 agents are provided for use in methods for treating diverticular
 disease.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 16 OF 48 USPATFULL on STN
 AN 2005:286404 USPATFULL
 TI Process for treating a biological organism
 IN Tuszynski, Jack A., Edmonton, CANADA
 Goss, Kendrick, Brighton, MA, UNITED STATES
 Greenwald, Howard J., Rochester, NY, UNITED STATES
 Fritz, Garold F., Williamson, NY, UNITED STATES
 PI US 2005249667 A1 20051110
 AI US 2005-147125 A1 20050607 (11)
 RLI Continuation-in-part of Ser. No. US 2005-60868, filed on 18 Feb 2005,
 PENDING Continuation-in-part of Ser. No. US 2004-923615, filed on 20 Aug
 2004, PENDING Continuation-in-part of Ser. No. US 2004-808618, filed on
 24 Mar 2004, PENDING Continuation-in-part of Ser. No. US 2004-867517,
 filed on 14 Jun 2004, PENDING Continuation-in-part of Ser. No. US
 2004-878905, filed on 28 Jun 2004, PENDING
 DT Utility
 FS APPLICATION
 LREP HOWARD J. GREENWALD P.C., 349 W. COMMERCIAL STREET SUITE 2490, EAST
 ROCHESTER, NY, 14445-2408, US
 CLMN Number of Claims: 103
 ECL Exemplary Claim: 1
 DRWN 54 Drawing Page(s)
 LN.CNT 18060

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for treating cells within a biological organism in which sonic energy is focused on cells within a biological organism while the frequency and/or the power level of such energy is varied. In addition there is provided a process for synergistically combining sonic energy and other forms of energy, or other therapeutic agents, in the treatment of cells in living organisms. Furthermore there is provided a process for assaying the efficacy of other therapeutic agents with sonic energy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 17 OF 48 USPATFULL on STN
AN 2005:248564 USPATFULL
TI Biological polymer with differently charged portions
IN Tuszyński, Jack A., Edmonton, CANADA
Goss, Kendrick, Brighton, MA, UNITED STATES
Greenwald, Howard J., Rochester, NY, UNITED STATES
PI US 2005215764 A1 20050929
AI US 2005-60868 A1 20050218 (11)
RLI Continuation-in-part of Ser. No. US 2004-923615, filed on 20 Aug 2004, PENDING Continuation-in-part of Ser. No. US 2004-808618, filed on 24 Mar 2004, PENDING Continuation-in-part of Ser. No. US 2004-867517, filed on 14 Jun 2004, PENDING Continuation-in-part of Ser. No. US 2004-878905, filed on 28 Jun 2004, PENDING
DT Utility
FS APPLICATION
LREP HOWARD J. GREENWALD P.C., 349 W. COMMERCIAL STREET SUITE 2490, EAST ROCHESTER, NY, 14445-2408, US
CLMN Number of Claims: 46
ECL Exemplary Claim: 1
DRWN 30 Drawing Page(s)
LN.CNT 15911

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A biological polymer assembly with a biological polymer that contains at least 90 percent of tubulin and a positively charged segment. The positively charged segment has a molecular weight of at least about 5,000 Daltons, a bulk electrical conductivity of at least about 10.sup.-7 ohms.sup.-1 meter.sup.-1 Siemens, a concentration of elemental charges per cubic centimeter of from about 10.sup.12 to about 10.sup.25, and a length of at least about 2 nanometers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 18 OF 48 USPATFULL on STN
AN 2005:220596 USPATFULL
TI Medical implants and anti-scarring agents
IN Hunter, William L., Vancouver, CANADA
Gravett, David M., Vancouver, CANADA
Toliekis, Philip M., Vancouver, CANADA
Maiti, Arpita, Vancouver, CANADA
Signore, Pierre E., Vancouver, CANADA
Liggins, Richard T., Coquitlam, CANADA
PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
PI US 2005191331 A1 20050901
AI US 2004-1419 A1 20041130 (11)
RLI Continuation of Ser. No. US 2004-986231, filed on 10 Nov 2004, PENDING
PRAI US 2003-518785P 20031110 (60)
US 2003-523908P 20031120 (60)
US 2003-524023P 20031120 (60)
US 2003-525226P 20031124 (60)
US 2003-526541P 20031203 (60)
US 2004-586861P 20040709 (60)

US 2004-578471P 20040609 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
6300, SEATTLE, WA, 98104-7092, US
CLMN Number of Claims: 178
ECL Exemplary Claim: 1-2104
DRWN 28 Drawing Page(s)
LN.CNT 56419

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Implants are used in combination with an anti-scarring agent in order to inhibit scarring that may otherwise occur when the implant is placed within an animal. The agent may be any suitable anti-scarring agent, e.g., a cell cycle inhibitor, and may be used in conjunction with a second pharmaceutical agent, e.g., an antibiotic. Suitable implants include intravascular implants, a vascular graft or wrap implant, an implant for hemodialysis access, an implant that provides an anastomotic connection, ventricular assist implant, a prosthetic heart valve implant, an inferior vena cava filter implant, a peritoneal dialysis catheter implant, a central nervous system shunt, an intraocular lens, an implant for glaucoma drainage, a penile implant, an endotracheal tube, a tracheostomy tube, a gastrointestinal device, and a spinal tube implant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 19 OF 48 USPATFULL on STN
AN 2005:214571 USPATFULL
TI Intravascular devices and fibrosis-inducing agents
IN Hunter, William L., Vancouver, CANADA
Gravett, David M., Vancouver, CANADA
Tolcikis, Philip M., Vancouver, CANADA
Maiti, Arpita, Vancouver, CANADA
Signore, Pierre E., Vancouver, CANADA
Liggins, Richard T., Coquitlam, CANADA
Guan, Dechi, Vancouver, CANADA
PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
PI US 2005186243 A1 20050825
AI US 2004-97 A1 20041129 (11)
RLI Continuation of Ser. No. US 2004-986450, filed on 10 Nov 2004, PENDING
PRAI US 2003-518785P 20031110 (60)
US 2003-523908P 20031120 (60)
US 2003-524023P 20031120 (60)
US 2004-582833P 20040624 (60)
US 2004-586861P 20040709 (60)
US 2004-578471P 20040609 (60)

DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
6300, SEATTLE, WA, 98104-7092, US
CLMN Number of Claims: 59
ECL Exemplary Claim: 1-375
DRWN 16 Drawing Page(s)
LN.CNT 12909

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Intravascular devices (e.g., stents, stent grafts, covered stents, aneurysm coils, embolic agents and drug delivery catheters and balloons) are used in combination with fibrosing agents in order to induce fibrosis that may otherwise not occur when the implant is placed within an animal or to promote fibrosis between the devices and the host tissues. Compositions and methods are described for use in the treatment

of aneurysms and unstable arterial (vulnerable) plaque.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 20 OF 48 USPATFULL on STN
AN 2005:214570 USPATFULL
TI Intravascular devices and fibrosis-inducing agents
IN Hunter, William L., Vancouver, CANADA
Gravett, David M., Vancouver, CANADA
Tolcikis, Philip M., Vancouver, CANADA
Maiti, Arpita, Vancouver, CANADA
Signore, Pierre E., Vancouver, CANADA
Liggins, Richard T., Coquitlam, CANADA
Guan, Dechi, Vancouver, CANADA
PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
PI US 2005186242 A1 20050825
AI US 2004-999204 A1 20041129 (10)
RLI Continuation of Ser. No. US 2004-986450, filed on 10 Nov 2004, PENDING
PRAI US 2003-518785P 20031110 (60)
US 2003-523908P 20031120 (60)
US 2003-524023P 20031120 (60)
US 2004-582833P 20040624 (60)
US 2004-578471P 20040609 (60)
US 2004-586861P 20040709 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
6300, SEATTLE, WA, 98104-7092, US
CLMN Number of Claims: 25
ECL Exemplary Claim: 1-1613
DRWN 22 Drawing Page(s)
LN.CNT 12829

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Intravascular devices (e.g., stents, stent grafts, covered stents, aneurysm coils, embolic agents and drug delivery catheters and balloons) are used in combination with fibrosing agents in order to induce fibrosis that may otherwise not occur when the implant is placed within an animal or to promote fibrosis between the devices and the host tissues. Compositions and methods are described for use in the treatment of aneurysms and unstable arterial (vulnerable) plaque.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 21 OF 48 USPATFULL on STN
AN 2005:212065 USPATFULL
TI Medical implants and anti-scarring agents
IN Hunter, William L., Vancouver, CANADA
Gravett, David M., Vancouver, CANADA
Tolcikis, Philip M., Vancouver, CANADA
Maiti, Arpita, Vancouver, CANADA
Signore, Pierre E., Vancouver, CANADA
Liggins, Richard T., Coquitlam, CANADA
PA Angiotech International AG, Zug, SWITZERLAND, 6304 (non-U.S. corporation)
PI US 2005183728 A1 20050825
AI US 2004-7836 A1 20041207 (11)
RLI Continuation of Ser. No. US 2004-986231, filed on 10 Nov 2004, PENDING
PRAI US 2003-518785P 20031110 (60)
US 2003-523908P 20031120 (60)
US 2003-524023P 20031120 (60)
US 2003-525226P 20031124 (60)

US 2003-526541P 20031203 (60)
 US 2004-586861P 20040709 (60)
 US 2004-578471P 20040609 (60)

DT Utility
 FS APPLICATION
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE 6300, SEATTLE, WA, 98104-7092, US
 CLMN Number of Claims: 178
 ECL Exemplary Claim: 1-3411
 DRWN 28 Drawing Page(s)
 LN.CNT 56413

AB Implants are used in combination with an anti-scarring agent in order to inhibit scarring that may otherwise occur when the implant is placed within an animal. The agent may be any suitable anti-scarring agent, e.g., a cell cycle inhibitor, and may be used in conjunction with a second pharmaceutical agent, e.g., an antibiotic. Suitable implants include intravascular implants, a vascular graft or wrap implant, an implant for hemodialysis access, an implant that provides an anastomotic connection, ventricular assist implant, a prosthetic heart valve implant, an inferior vena cava filter implant, a peritoneal dialysis catheter implant, a central nervous system shunt, an intraocular lens, an implant for glaucoma drainage, a penile implant, an endotracheal tube, a tracheostomy tube, a gastrointestinal device, and a spinal implant.

L18 ANSWER 22 OF 48 USPATFULL on STN
 AN 2005:209494 USPATFULL
 TI Medical implants and anti-scarring agents
 IN Hunter, William L., Vancouver, CANADA
 Gravett, David M., Vancouver, CANADA
 Toleikis, Philip M., Vancouver, CANADA
 Maiti, Arpita, Vancouver, CANADA
 Signore, Pierre E., Vancouver, CANADA
 Liggins, Richard T., Coquitlam, CANADA
 PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
 PI US 2005181977 A1 20050818
 AI US 2004-986231 A1 20041110 (10)
 PRAI US 2003-518785P 20031110 (60)
 US 2003-523908P 20031120 (60)
 US 2003-524023P 20031120 (60)
 US 2003-525226P 20031124 (60)
 US 2003-526541P 20031203 (60)
 US 2004-586861P 20040709 (60)
 US 2004-578471P 20040609 (60)

DT Utility
 FS APPLICATION
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE 6300, SEATTLE, WA, 98104-7092, US
 CLMN Number of Claims: 182
 ECL Exemplary Claim: 1
 DRWN 28 Drawing Page(s)
 LN.CNT 56396

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Implants are used in combination with an anti-scarring agent in order to inhibit scarring that may otherwise occur when the implant is placed within an animal. The agent may be any suitable anti-scarring agent, e.g., a cell cycle inhibitor, and may be used in conjunction with a second pharmaceutical agent, e.g., an antibiotic. Suitable implants include intravascular implants, a vascular graft or wrap implant, an implant for hemodialysis access, an implant that provides an anastomotic

connection, ventricular assist implant, a prosthetic heart valve implant, an inferior vena cava filter implant, a peritoneal dialysis catheter implant, a central nervous system shunt, an intraocular lens, an implant for glaucoma drainage, a penile implant, an endotracheal tube, a tracheostomy tube, a gastrointestinal device, and a spinal implant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 23 OF 48 USPATFULL on STN
AN 2005:208533 USPATFULL
TI Medical implants and anti-scarring agents
IN Hunter, William L., Vancouver, CANADA
Gravett, David M., Vancouver, CANADA
Tolakis, Philip M., Vancouver, CANADA
Maiti, Arpita, Vancouver, CANADA
Signore, Pierre E., Vancouver, CANADA
Liggins, Richard T., Coquitlam, CANADA
PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
PI US 2005181011 A1 20050818
AI US 2004-1792 A1 20041202 (11)
RLI Continuation of Ser. No. US 2004-986231, filed on 10 Nov 2004, PENDING
PRAI US 2003-518785P 20031110 (60)
US 2003-523908P 20031120 (60)
US 2003-524023P 20031120 (60)
US 2003-525226P 20031124 (60)
US 2003-526541P 20031203 (60)
US 2004-586861P 20040709 (60)
US 2004-578471P 20040609 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
6300, SEATTLE, WA, 98104-7092, US
CLMN Number of Claims: 177
ECL Exemplary Claim: 1-4994
DRWN 28 Drawing Page(s)
LN.CNT 56421

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Implants are used in combination with an anti-scarring agent in order to inhibit scarring that may otherwise occur when the implant is placed within an animal. The agent may be any suitable anti-scarring agent, e.g., a cell cycle inhibitor, and may be used in conjunction with a second pharmaceutical agent, e.g., an antibiotic. Suitable implants include intravascular implants, a vascular graft or wrap implant, an implant for hemodialysis access, an implant that provides an anastomotic connection, ventricular assist implant, a prosthetic heart valve implant, an inferior vena cava filter implant, a peritoneal dialysis catheter implant, a central nervous system shunt, an intraocular lens, an implant for glaucoma drainage, a penile implant, an endotracheal tube, a tracheostomy tube, a gastrointestinal device, and a spinal implant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 24 OF 48 USPATFULL on STN
AN 2005:208530 USPATFULL
TI Medical implants and anti-scarring agents
IN Hunter, William L., Vancouver, CANADA
Gravett, David M., Vancouver, CANADA
Tolakis, Philip M., Vancouver, CANADA
Maiti, Arpita, Vancouver, CANADA

Signore, Pierre E., Vancouver, CANADA
 Liggins, Richard T., Coquitlam, CANADA
 PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
 PI US 2005181008 A1 20050818
 AI US 2004-1786 A1 20041202 (11)
 RLI Continuation of Ser. No. US 2004-986231, filed on 10 Nov 2004, PENDING
 PRAI US 2003-518785P 20031110 (60)
 US 2003-523908P 20031120 (60)
 US 2003-524023P 20031120 (60)
 US 2003-525226P 20031124 (60)
 US 2003-526541P 20031203 (60)
 US 2004-586861P 20040709 (60)
 US 2004-578471P 20040609 (60)
 DT Utility
 FS APPLICATION
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
 6300, SEATTLE, WA, 98104-7092, US
 CLMN Number of Claims: 178
 ECL Exemplary Claim: 1-4736
 DRWN 28 Drawing Page(s)
 LN.CNT 56377

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Implants are used in combination with an anti-scarring agent in order to inhibit scarring that may otherwise occur when the implant is placed within an animal. The agent may be any suitable anti-scarring agent, e.g., a cell cycle inhibitor, and may be used in conjunction with a second pharmaceutical agent, e.g., an antibiotic. Suitable implants include intravascular implants, a vascular graft or wrap implant, an implant for hemodialysis access, an implant that provides an anastomotic connection, ventricular assist implant, a prosthetic heart valve implant, an inferior vena cava filter implant, a peritoneal dialysis catheter implant, a central nervous system shunt, an intraocular lens, an implant for glaucoma drainage, a penile implant, an endotracheal tube, a tracheostomy tube, a gastrointestinal device, and a spinal implant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 25 OF 48 USPATFULL on STN
 AN 2005:208526 USPATFULL
 TI Intravascular devices and fibrosis-inducing agents
 IN Hunter, William L., Vancouver, CANADA
 Gravett, David M., Vancouver, CANADA
 Toleikis, Philip M., Vancouver, CANADA
 Maiti, Arpita, Vancouver, CANADA
 Signore, Pierre E., Vancouver, CANADA
 Liggins, Richard T., Coquitlam, CANADA
 Guan, Dechi, Vancouver, CANADA
 PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
 PI US 2005181004 A1 20050818
 AI US 2004-6289 A1 20041207 (11)
 RLI Continuation of Ser. No. US 2004-986450, filed on 10 Nov 2004, PENDING
 PRAI US 2003-518785P 20031110 (60)
 US 2003-523908P 20031120 (60)
 US 2003-524023P 20031120 (60)
 US 2004-582833P 20040624 (60)
 US 2004-578471P 20040609 (60)
 US 2004-586861P 20040709 (60)
 DT Utility
 FS APPLICATION
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE

6300, SEATTLE, WA, 98104-7092, US
CLMN Number of Claims: 89
ECL Exemplary Claim: 1-540
DRWN 22 Drawing Page(s)
LN.CNT 12981

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Intravascular devices (e.g., stents, stent grafts, covered stents, aneurysm coils, embolic agents and drug delivery catheters and balloons) are used in combination with fibrosing agents in order to induce fibrosis that may otherwise not occur when the implant is placed within an animal or to promote fibrosis between the devices and the host tissues. Compositions and methods are described for use in the treatment of aneurysms and unstable arterial (vulnerable) plaque.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 26 OF 48 USPATFULL on STN

AN 2005:203799 USPATFULL
TI Medical implants and anti-scarring agents
IN Hunter, William L., Vancouver, CANADA
Gravett, David M., Vancouver, CANADA
Toleikis, Philip M., Vancouver, CANADA
Maiti, Arpita, Vancouver, CANADA
Signore, Pierre E., Vancouver, CANADA
Liggins, Richard T., Coquitlam, CANADA
PA Angiotech International AG, Zug, SWITZERLAND, CH (non-U.S. corporation)
PI US 2005177225 A1 20050811
AI US 2004-6895 A1 20041207 (11)
RLI Continuation of Ser. No. US 2004-986231, filed on 10 Nov 2004, PENDING
PRAI US 2004-586861P 20040709 (60)
US 2004-578471P 20040609 (60)
US 2003-526541P 20031203 (60)
US 2003-525226P 20031124 (60)
US 2003-523908P 20031120 (60)
US 2003-524023P 20031120 (60)
US 2003-518785P 20031110 (60)

DT Utility

FS APPLICATION

LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE 6300, SEATTLE, WA, 98104-7092, US

CLMN Number of Claims: 173
ECL Exemplary Claim: 1-11788
DRWN 28 Drawing Page(s)
LN.CNT 56371

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Implants are used in combination with an anti-scarring agent in order to inhibit scarring that may otherwise occur when the implant is placed within an animal. The agent may be any suitable anti-scarring agent, e.g., a cell cycle inhibitor, and may be used in conjunction with a second pharmaceutical agent, e.g., an antibiotic. Suitable implants include intravascular implants, a vascular graft or wrap implant, an implant for hemodialysis access, an implant that provides an anastomotic connection, ventricular assist implant, a prosthetic heart valve implant, an inferior vena cava filter implant, a peritoneal dialysis catheter implant, a central nervous system shunt, an intraocular lens, an implant for glaucoma drainage, a penile implant, an endotracheal tube, a tracheostomy tube, a gastrointestinal device, and a spinal implant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 27 OF 48 USPATFULL on STN
 AN 2005:203677 USPATFULL
 TI Intravascular devices and fibrosis-inducing agents
 IN Hunter, William L., Vancouver, CANADA
 Gravett, David M., Vancouver, CANADA
 Toleikis, Philip M., Vancouver, CANADA
 Maiti, Arpita, Vancouver, CANADA
 Signore, Pierre E., Vancouver, CANADA
 Liggins, Richard T., Coquitlam, CANADA
 Guan, Dechi, Vancouver, CANADA
 PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
 PI US 2005177103 A1 20050811
 AI US 2004-6314 A1 20041207 (11)
 RLI Continuation of Ser. No. US 2004-986450, filed on 10 Nov 2004, PENDING
 PRAI US 2003-518785P 20031110 (60)
 US 2003-523908P 20031120 (60)
 US 2003-524023P 20031120 (60)
 US 2004-582833P 20040624 (60)
 US 2004-578471P 20040609 (60)
 US 2004-586861P 20040709 (60)
 DT Utility
 FS APPLICATION
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
 6300, SEATTLE, WA, 98104-7092, US
 CLMN Number of Claims: 89
 ECL Exemplary Claim: 1-705
 DRWN 22 Drawing Page(s)
 LN.CNT 12990
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB Intravascular devices (e.g., stents, stent grafts, covered stents,
 aneurysm coils, embolic agents and drug delivery catheters and balloons)
 are used in combination with fibrosing agents in order to induce
 fibrosis that may otherwise not occur when the implant is placed within
 an animal or to promote fibrosis between the devices and the host
 tissues. Compositions and methods are described for use in the treatment
 of aneurysms and unstable arterial (vulnerable) plaque.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 28 OF 48 USPATFULL on STN
 AN 2005:202245 USPATFULL
 TI Medical implants and anti-scarring agents
 IN Hunter, William L., Vancouver, CANADA
 Gravett, David M., Vancouver, CANADA
 Toleikis, Philip M., Vancouver, CANADA
 Maiti, Arpita, Vancouver, CANADA
 Signore, Pierre E., Vancouver, CANADA
 Liggins, Richard T., Coquitlam, CANADA
 PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
 PI US 2005175663 A1 20050811
 AI US 2004-1791 A1 20041202 (11)
 RLI Continuation of Ser. No. US 2004-986231, filed on 10 Nov 2004, PENDING
 PRAI US 2003-518785P 20031110 (60)
 US 2003-523908P 20031120 (60)
 US 2003-524023P 20031120 (60)
 US 2003-525226P 20031124 (60)
 US 2003-526541P 20031203 (60)
 US 2004-586861P 20040709 (60)
 US 2004-578471P 20040609 (60)
 DT Utility
 FS APPLICATION

LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
6300, SEATTLE, WA, 98104-7092, US

CLMN Number of Claims: 180

ECL Exemplary Claim: 1-3944

DRWN 28 Drawing Page(s)

LN.CNT 56451

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Implants are used in combination with an anti-scarring agent in order to inhibit scarring that may otherwise occur when the implant is placed within an animal. The agent may be any suitable anti-scarring agent, e.g., a cell cycle inhibitor, and may be used in conjunction with a second pharmaceutical agent, e.g., an antibiotic. Suitable implants include intravascular implants, a vascular graft or wrap implant, an implant for hemodialysis access, an implant that provides an anastomotic connection, ventricular assist implant, a prosthetic heart valve implant, an inferior vena cava filter implant, a peritoneal dialysis catheter implant, a central nervous system shunt, an intraocular lens, an implant for glaucoma drainage, a penile implant, an endotracheal tube, a tracheostomy tube, a gastrointestinal device, and a spinal implant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 29 OF 48 USPATFULL ON STN

AN 2005:202244 USPATFULL

TI Intravascular devices and fibrosis-inducing agents

IN Hunter, William L., Vancouver, CANADA

Gravett, David M., Vancouver, CANADA

Toleikis, Philip M., Vancouver, CANADA

Maiti, Arpita, Vancouver, CANADA

Signore, Pierre E., Vancouver, CANADA

Liggins, Richard T., Coquitlam, CANADA

Guan, Dechi, Vancouver, CANADA

PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)

PI US 2005175662 A1 20050811

AI US 2004-451 A1 20041129 (11)

RLI Continuation of Ser. No. US 2004-986450, filed on 10 Nov 2004, PENDING

PRA1 US 2003-518785P 20031110 (60)

US 2003-523908P 20031120 (60)

US 2003-524023P 20031120 (60)

US 2004-582833P 20040624 (60)

US 2004-578471P 20040609 (60)

US 2004-586861P 20040709 (60)

DT Utility

FS APPLICATION

LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
6300, SEATTLE, WA, 98104-7092, US

CLMN Number of Claims: 25

ECL Exemplary Claim: 1-1120

DRWN 22 Drawing Page(s)

LN.CNT 12822

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Intravascular devices (e.g., stents, stent grafts, covered stents, aneurysm coils, embolic agents and drug delivery catheters and balloons) are used in combination with fibrosing agents in order to induce fibrosis that may otherwise not occur when the implant is placed within an animal or to promote fibrosis between the devices and the host tissues. Compositions and methods are described for use in the treatment of aneurysms and unstable arterial (vulnerable) plaque.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 30 OF 48 USPATFULL on STN
 AN 2005:202243 USPATFULL
 TI Intravascular devices and fibrosis-inducing agents
 IN Hunter, William L., Vancouver, CANADA
 Gravett, David M., Vancouver, CANADA
 Toleikis, Philip M., Vancouver, CANADA
 Maiti, Arpita, Vancouver, CANADA
 Signore, Pierre E., Vancouver, CANADA
 Liggins, Richard T., Coquitlam, CANADA
 Guan, Dechi, Vancouver, CANADA
 PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
 PI US 2005175661 A1 20050811
 AI US 2004-999205 A1 20041129 (10)
 RLI Continuation of Ser. No. US 2004-986450, filed on 10 Nov 2004, PENDING
 PRAI US 2003-518785P 20031110 (60)
 US 2003-523908P 20031120 (60)
 US 2003-524023P 20031120 (60)
 US 2004-582833P 20040624 (60)
 US 2004-578471P 20040609 (60)
 US 2004-586861P 20040709 (60)
 DT Utility
 FS APPLICATION
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
 6300, SEATTLE, WA, 98104-7092, US
 CLMN Number of Claims: 54
 ECL Exemplary Claim: 1-195
 DRWN 22 Drawing Page(s)
 LN.CNT 12893
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB Intravascular devices (e.g., stents, stent grafts, covered stents,
 aneurysm coils, embolic agents and drug delivery catheters and balloons)
 are used in combination with fibrosing agents in order to induce
 fibrosis that may otherwise not occur when the implant is placed within
 an animal or to promote fibrosis between the devices and the host
 tissues. Compositions and methods are described for use in the treatment
 of aneurysms and unstable arterial (vulnerable) plaque.
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 L18 ANSWER 31 OF 48 USPATFULL on STN
 AN 2005:190568 USPATFULL
 TI Medical implants and anti-scarring agents
 IN Hunter, William L., Vancouver, CANADA
 Gravett, David M., Vancouver, CANADA
 Toleikis, Philip M., Vancouver, CANADA
 Maiti, Arpita, Vancouver, CANADA
 Signore, Pierre E., Vancouver, CANADA
 Liggins, Richard T., Coquitlam, CANADA
 PA Angiotech International AG, Zug, SWEDEN (non-U.S. corporation)
 PI US 2005165488 A1 20050728
 AI US 2004-6912 A1 20041207 (11)
 RLI Continuation of Ser. No. US 2004-986231, filed on 10 Nov 2004, PENDING
 PRAI US 2004-586861P 20040709 (60)
 US 2004-578471P 20040609 (60)
 US 2003-526541P 20031203 (60)
 US 2003-525226P 20031124 (60)
 US 2003-523908P 20031120 (60)
 US 2003-524023P 20031120 (60)
 US 2003-518785P 20031110 (60)
 DT Utility

FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
6300, SEATTLE, WA, 98104-7092, US
CLMN Number of Claims: 176
ECL Exemplary Claim: 1-3153
DRWN 28 Drawing Page(s)
LN.CNT 56407
AB Implants are used in combination with an anti-scarring agent in order to
inhibit scarring that may otherwise occur when the implant is placed
within an animal. The agent may be any suitable anti-scarring agent,
e.g., a cell cycle inhibitor, and may be used in conjunction with a
second pharmaceutical agent, e.g., an antibiotic. Suitable implants
include intravascular implants, a vascular graft or wrap implant, an
implant for hemodialysis access, an implant that provides an anastomotic
connection, ventricular assist implant, a prosthetic heart valve
implant, an inferior vena cava filter implant, a peritoneal dialysis
catheter implant, a central nervous system shunt, an intraocular lens,
an implant for glaucoma drainage, a penile implant, an endotracheal
tube, a tracheostomy tube, a gastrointestinal device, and a spinal
implant.

L18 ANSWER 32 OF 48 USPATFULL on STN
AN 2005:190547 USPATFULL
TI Intravascular devices and fibrosis-inducing agents
IN Hunter, William L., Vancouver, CANADA
Gravett, David M., Vancouver, CANADA
Tolakis, Philip M., Vancouver, CANADA
Maiti, Arpita, Vancouver, CANADA
Signore, Pierre E., Vancouver, CANADA
Liggins, Richard T., Coquitlam, CANADA
Guan, Dechi, Vancouver, CANADA
PA Angiotech International AG, Zug, SWITZERLAND, 6304 (non-U.S.
corporation)
PI US 2005165467 A1 20050728
AI US 2004-6048 A1 20041207 (11)
RLI Continuation of Ser. No. US 2004-986450, filed on 10 Nov 2004, PENDING
PRAI US 2003-518785P 20031110 (60)
US 2003-523908P 20031120 (60)
US 2003-524023P 20031120 (60)
US 2004-582833P 20040624 (60)
US 2004-578471P 20040609 (60)
US 2004-586861P 20040709 (60)

DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
6300, SEATTLE, WA, 98104-7092, US
CLMN Number of Claims: 111
ECL Exemplary Claim: 1-1241
DRWN 22 Drawing Page(s)
LN.CNT 13096
AB Intravascular devices (e.g., stents, stent grafts, covered stents,
aneurysm coils, embolic agents and drug delivery catheters and balloons)
are used in combination with fibrosing agents in order to induce
fibrosis that may otherwise not occur when the implant is placed within
an animal or to promote fibrosis between the devices and the host
tissues. Compositions and methods are described for use in the treatment
of aneurysms and unstable arterial (vulnerable) plaque.

L18 ANSWER 33 OF 48 USPATFULL on STN

AN 2005:178373 USPATFULL
 TI Intravascular devices and fibrosis-inducing agents
 IN Hunter, William L., Vancouver, CANADA
 Gravett, David M., Vancouver, CANADA
 Toleikis, Philip M., Vancouver, CANADA
 Maiti, Arpita, Vancouver, CANADA
 Signore, Pierre E., Vancouver, CANADA
 Liggins, Richard T., Coquitlam, CANADA
 Guan, Dechi, Vancouver, CANADA
 PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
 PI US 2005154454 Al 20050714
 AI US 2004-6290 Al 20041207 (11)
 RLI Continuation of Ser. No. US 2004-986450, filed on 10 Nov 2004, PENDING
 PRAI US 2003-518785P 20031110 (60)
 US 2003-523908P 20031120 (60)
 US 2003-524023P 20031120 (60)
 US 2004-582833P 20040624 (60)
 US 2004-586861P 20040709 (60)
 US 2004-578471P 20040609 (60)
 DT Utility
 FS APPLICATION
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
 6300, SEATTLE, WA, 98104-7092, US
 CLMN Number of Claims: 111
 ECL Exemplary Claim: 1-995
 DRWN 22 Drawing Page(s)
 LN.CNT 13237
 AB Intravascular devices (e.g., stents, stent grafts, covered stents,
 aneurysm coils, embolic agents and drug delivery catheters and balloons)
 are used in combination with fibrosing agents in order to induce
 fibrosis that may otherwise not occur when the implant is placed within
 an animal or to promote fibrosis between the devices and the host
 tissues. Compositions and methods are described for use in the treatment
 of aneurysms and unstable arterial (vulnerable) plaque.

L18 ANSWER 34 OF 48 USPATFULL on STN
 AN 2005:178372 USPATFULL
 TI Intravascular devices and fibrosis-inducing agents
 IN Hunter, William L., Vancouver, CANADA
 Gravett, David M., Vancouver, CANADA
 Toleikis, Philip M., Vancouver, CANADA
 Maiti, Arpita, Vancouver, CANADA
 Signore, Pierre E., Vancouver, CANADA
 Liggins, Richard T., Coquitlam, CANADA
 Guan, Dechi, Vancouver, CANADA
 PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
 PI US 2005154453 Al 20050714
 AI US 2004-461 Al 20041129 (11)
 RLI Continuation of Ser. No. US 2004-986450, filed on 10 Nov 2004, PENDING
 PRAI US 2003-518785P 20031110 (60)
 US 2003-523908P 20031120 (60)
 US 2003-524023P 20031120 (60)
 US 2004-582833P 20040624 (60)
 US 2004-578471P 20040609 (60)
 US 2004-586861P 20040709 (60)
 DT Utility
 FS APPLICATION
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
 6300, SEATTLE, WA, 98104-7092, US
 CLMN Number of Claims: 28

ECL Exemplary Claim: 1-870

DRWN 22 Drawing Page(s)

LN.CNT 12830

AB Intravascular devices (e.g., stents, stent grafts, covered stents, aneurysm coils, embolic agents and drug delivery catheters and balloons) are used in combination with fibrosing agents in order to induce fibrosis that may otherwise not occur when the implant is placed within an animal or to promote fibrosis between the devices and the host tissues. Compositions and methods are described for use in the treatment of aneurysms and unstable arterial (vulnerable) plaque.

L18 ANSWER 35 OF 48 USPATFULL on STN

AN 2005:178364 USPATFULL

TI Intravascular devices and fibrosis-inducing agents

IN Hunter, William L., Vancouver, CANADA

Gravett, David M., Vancouver, CANADA

Toleikis, Philip M., Vancouver, CANADA

Maiti, Arpita, Vancouver, CANADA

Signore, Pierre E., Vancouver, CANADA

Liggins, Richard T., Coquitlam, CANADA

Guan, Dechi, Vancouver, CANADA

PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)

PI US 2005154445 A1 20050714

AI US 2004-6266 A1 20041207 (11)

RLI Continuation of Ser. No. US 2004-986450, filed on 10 Nov 2004, PENDING

PRAI US 2003-518785P 20031110 (60)

US 2003-523908P 20031120 (60)

US 2003-524023P 20031120 (60)

US 2004-582833P 20040624 (60)

US 2004-586861P 20040709 (60)

US 2004-578471P 20040609 (60)

DT Utility

FS APPLICATION

LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE 6300, SEATTLE, WA, 98104-7092, US

CLMN Number of Claims: 114

ECL Exemplary Claim: 1-1479

DRWN 22 Drawing Page(s)

LN.CNT 13066

AB Intravascular devices (e.g., stents, stent grafts, covered stents, aneurysm coils, embolic agents and drug delivery catheters and balloons) are used in combination with fibrosing agents in order to induce fibrosis that may otherwise not occur when the implant is placed within an animal or to promote fibrosis between the devices and the host tissues. Compositions and methods are described for use in the treatment of aneurysms and unstable arterial (vulnerable) plaque.

L18 ANSWER 36 OF 48 USPATFULL on STN

AN 2005:172426 USPATFULL

TI Intravascular devices and fibrosis-inducing agents

IN Hunter, William L., Vancouver, CANADA

Gravett, David M., Vancouver, CANADA

Toleikis, Philip M., Vancouver, CANADA

Maiti, Arpita, Vancouver, CANADA

Signore, Pierre E., Vancouver, CANADA

Liggins, Richard T., Coquitlam, CANADA

Guan, Dechi, Vancouver, CANADA

PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)

PI US 2005149175 A1 20050707

AI US 2004-7719 A1 20041207 (11)
 RLI Continuation of Ser. No. US 2004-986450, filed on 10 Nov 2004, PENDING
 PRAI US 2003-518785P 20031110 (60)
 US 2003-523908P 20031120 (60)
 US 2003-524023P 20031120 (60)
 US 2004-582833P 20040624 (60)
 US 2004-578471P 20040609 (60)
 US 2004-586861P 20040709 (60)
 DT Utility
 FS APPLICATION
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
 6300, SEATTLE, WA, 98104-7092, US
 CLMN Number of Claims: 113
 ECL Exemplary Claim: 1-1360
 DRWN 22 Drawing Page(s)
 LN.CNT 13090
 AB Intravascular devices (e.g., stents, stent grafts, covered stents,
 aneurysm coils, embolic agents and drug delivery catheters and balloons)
 are used in combination with fibrosing agents in order to induce
 fibrosis that may otherwise not occur when the implant is placed within
 an animal or to promote fibrosis between the devices and the host
 tissues. Compositions and methods are described for use in the treatment
 of aneurysms and unstable arterial (vulnerable) plaque.

L18 ANSWER 37 OF 48 USPATFULL on STN
 AN 2005:172424 USPATFULL
 TI Intravascular devices and fibrosis-inducing agents
 IN Hunter, William L., Vancouver, CANADA
 Gravett, David M., Vancouver, CANADA
 Toleikis, Philip M., Vancouver, CANADA
 Maiti, Arpita, Vancouver, CANADA
 Signore, Pierre E., Vancouver, CANADA
 Liggins, Richard T., Coquitlam, CANADA
 Guan, Dechi, Vancouver, CANADA
 PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
 PI US 2005149173 A1 20050707
 AI US 2004-986450 A1 20041110 (10)
 PRAI US 2003-518785P 20031110 (60)
 US 2003-523908P 20031120 (60)
 US 2003-524023P 20031120 (60)
 US 2004-582833P 20040624 (60)
 US 2004-586861P 20040709 (60)
 US 2004-578471P 20040609 (60)
 DT Utility
 FS APPLICATION
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
 6300, SEATTLE, WA, 98104-7092, US
 CLMN Number of Claims: 49
 ECL Exemplary Claim: 1
 DRWN 22 Drawing Page(s)
 LN.CNT 12876
 AB Intravascular devices (e.g., stents, stent grafts, covered stents,
 aneurysm coils, embolic agents and drug delivery catheters and balloons)
 are used in combination with fibrosing agents in order to induce
 fibrosis that may otherwise not occur when the implant is placed within
 an animal or to promote fibrosis between the devices and the host
 tissues. Compositions and methods are described for use in the treatment
 of aneurysms and unstable arterial (vulnerable) plaque.

L18 ANSWER 38 OF 48 USPATFULL on STN
 AN 2005:172409 USPATFULL
 TI Medical implants and anti-scarring agents
 IN Hunter, William L., Vancouver, CANADA
 Gravett, David M., Vancouver, CANADA
 Toleikis, Philip M., Vancouver, CANADA
 Maiti, Arpita, Vancouver, CANADA
 Signore, Pierre E., Vancouver, CANADA
 Liggins, Richard T., Coquitlam, CANADA
 PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
 PI US 2005149158 Al 20050707
 AI US 2004-409 Al 20041129 (11)
 RLI Continuation of Ser. No. US 2004-986231, filed on 10 Nov 2004, PENDING
 PRAI US 2003-518785P 20031110 (60)
 US 2003-523908P 20031120 (60)
 US 2003-524023P 20031120 (60)
 US 2003-525226P 20031124 (60)
 US 2003-526541P 20031203 (60)
 US 2004-586861P 20040709 (60)
 US 2004-578471P 20040609 (60)
 DT Utility
 FS APPLICATION
 LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE
 6300, SEATTLE, WA, 98104-7092, US
 CLMN Number of Claims: 178
 ECL Exemplary Claim: 1-274
 DRWN 28 Drawing Page(s)
 LN.CNT 56404
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB Implants are used in combination with an anti-scarring agent in order to
 inhibit scarring that may otherwise occur when the implant is placed
 within an animal. The agent may be any suitable anti-scarring agent,
 e.g., a cell cycle inhibitor, and may be used in conjunction with a
 second pharmaceutical agent, e.g., an antibiotic. Suitable implants
 include intravascular implants, a vascular graft or wrap implant, an
 implant for hemodialysis access, an implant that provides an anastomotic
 connection, ventricular assist implant, a prosthetic heart valve
 implant, an inferior vena cava filter implant, a peritoneal dialysis
 catheter implant, a central nervous system shunt, an intraocular lens,
 an implant for glaucoma drainage, a penile implant, an endotracheal
 tube, a tracheostomy tube, a gastrointestinal device, and a spinal
 implant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 39 OF 48 USPATFULL on STN
 AN 2005:172331 USPATFULL
 TI Medical implants and anti-scarring agents
 IN Hunter, William L., Vancouver, CANADA
 Gravett, David M., Vancouver, CANADA
 Toleikis, Philip M., Vancouver, CANADA
 Maiti, Arpita, Vancouver, CANADA
 Signore, Pierre E., Vancouver, CANADA
 Liggins, Richard T., Coquitlam, CANADA
 PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
 PI US 2005149080 Al 20050707
 AI US 2004-1418 Al 20041130 (11)
 RLI Continuation of Ser. No. US 2004-986231, filed on 10 Nov 2004, PENDING
 PRAI US 2004-586861P 20040709 (60)
 US 2004-578471P 20040609 (60)
 US 2003-526541P 20031203 (60)

	US 2003-525226P	20031124 (60)
	US 2003-523908P	20031120 (60)
	US 2003-524023P	20031120 (60)
	US 2003-518785P	20031110 (60)

DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE 6300, SEATTLE, WA, 98104-7092, US
CLMN Number of Claims: 178
ECL Exemplary Claim: 1-806
DRWN 28 Drawing Page(s)
LN.CNT 56418
AB Implants are used in combination with an anti-scarring agent in order to inhibit scarring that may otherwise occur when the implant is placed within an animal. The agent may be any suitable anti-scarring agent, e.g., a cell cycle inhibitor, and may be used in conjunction with a second pharmaceutical agent, e.g., an antibiotic. Suitable implants include intravascular implants, a vascular graft or wrap implant, an implant for hemodialysis access, an implant that provides an anastomotic connection, ventricular assist implant, a prosthetic heart valve implant, an inferior vena cava filter implant, a peritoneal dialysis catheter implant, a central nervous system shunt, an intraocular lens, an implant for glaucoma drainage, a penile implant, an endotracheal tube, a tracheostomy tube, a gastrointestinal device, and a spinal implant.

L18 ANSWER 40 OF 48 USPATFULL ON STN
AN 2005:125479 USPATFULL
TI Medical device with multiple coating layers
IN Wang, Xingwu, Wellsville, NY, UNITED STATES
Greenwald, Howard J., Rochester, NY, UNITED STATES
PI US 2005107870 A1 20050519
AI US 2004-923579 A1 20040820 (10)
RLI Continuation-in-part of Ser. No. US 2004-914691, filed on 9 Aug 2004, PENDING Continuation-in-part of Ser. No. US 2004-887521, filed on 7 Jul 2004, PENDING Continuation-in-part of Ser. No. US 2004-867517, filed on 14 Jun 2004, PENDING Continuation-in-part of Ser. No. US 2004-810916, filed on 26 Mar 2004, GRANTED, Pat. No. US 6846985 Continuation-in-part of Ser. No. US 2004-808618, filed on 24 Mar 2004, PENDING Continuation-in-part of Ser. No. US 2004-786198, filed on 25 Feb 2004, PENDING Continuation-in-part of Ser. No. US 2004-780045, filed on 17 Feb 2004, PENDING Continuation-in-part of Ser. No. US 2003-747472, filed on 29 Dec 2003, PENDING Continuation-in-part of Ser. No. US 2003-744543, filed on 22 Dec 2003, PENDING Continuation-in-part of Ser. No. US 2003-442420, filed on 21 May 2003, PENDING Continuation-in-part of Ser. No. US 2003-409505, filed on 8 Apr 2003, GRANTED, Pat. No. US 6815609
DT Utility
FS APPLICATION
LREP HOWARD J. GREENWALD P.C., 349 W. COMMERCIAL STREET SUITE 2490, EAST ROCHESTER, NY, 14445-2408, US
CLMN Number of Claims: 62
ECL Exemplary Claim: 1
DRWN 54 Drawing Page(s)
LN.CNT 18628
AB An implantable medical device that contains two coating layers disposed above at least one of its surfaces. The first coating layer contains a biologically active material; and the second coating layer contains a polymeric material and nanomagnetic material disposed on the first coating layer; the second coating layer is substantially free of the biologically active material. The nanomagnetic material has a saturation

magnetization of from about 2 to about 3000 electromagnetic units per cubic centimeter, and it contains nanomagnetic particles with an average particle size of less than about 100 nanometers; the average coherence length between adjacent nanomagnetic particles is less than 100 nanometers.

L18 ANSWER 41 OF 48 USPATFULL on STN

AN 2005:92457 USPATFULL

TI Medical device with low magnetic susceptibility

IN Wang, Xingwu, Wellsville, NY, UNITED STATES

Greenwald, Howard J., Rochester, NY, UNITED STATES

Gunderman, Robert D., Honeyoye Falls, NY, UNITED STATES

PI US 2005079132 A1 20050414

AI US 2004-914691 A1 20040809 (10)

RLI Continuation-in-part of Ser. No. US 2004-887521, filed on 7 Jul 2004, PENDING Continuation-in-part of Ser. No. US 2004-867517, filed on 14 Jun 2004, PENDING Continuation-in-part of Ser. No. US 2004-810916, filed on 26 Mar 2004, GRANTED, Pat. No. US 6846985 Continuation-in-part of Ser. No. US 2004-808618, filed on 24 Mar 2004, PENDING Continuation-in-part of Ser. No. US 2004-786198, filed on 25 Feb 2004, PENDING Continuation-in-part of Ser. No. US 2004-780045, filed on 17 Feb 2004, PENDING Continuation-in-part of Ser. No. US 2003-747472, filed on 29 Dec 2003, PENDING Continuation-in-part of Ser. No. US 2003-744543, filed on 22 Dec 2003, PENDING Continuation-in-part of Ser. No. US 2003-442420, filed on 21 May 2003, PENDING Continuation-in-part of Ser. No. US 2003-409505, filed on 8 Apr 2003, GRANTED, Pat. No. US 6815609

DT Utility

FS APPLICATION

LREP HOWARD J. GREENWALD P.C., 349 W. COMMERCIAL STREET SUITE 2490, EAST

ROCHESTER, NY, 14445-2408, US

CLMN Number of Claims: 127

ECL Exemplary Claim: 1

DRWN 52 Drawing Page(s)

LN.CNT 17912

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An assembly with a substrate, nanomagnetic material and magnetoresistive material. The nanomagnetic material has a saturation magnetization of from about 2 to about 3000 electromagnetic units per cubic centimeter; and it contains nanomagnetic particles with an average particle size of less than about 100 nanometers. The average coherence length between adjacent nanomagnetic particles is less than 100 nanometers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 42 OF 48 USPATFULL on STN

AN 2005:62607 USPATFULL

TI Biocompatible materials

IN Ulbricht, Mathias, Berlin, GERMANY, FEDERAL REPUBLIC OF

Thom, Volkmar, Arlington, MA, UNITED STATES

Jankova, Katja, Burgas, BULGARIA

Altankov, George, Sofia, BULGARIA

Jonsson, Gunnar, Vaerloese, DENMARK

PI US 2005053642 A1 20050310

AI US 2003-362677 A1 20030815 (10)

WO 2001-DK557 20010823

FRAI DK 2000-1250 20000823

DT Utility

FS APPLICATION

LREP Browdy and Neimark, Suite 300, 624 Ninth Street NW, Washington, DC, 20001

CLMN Number of Claims: 125
ECL Exemplary Claim: 1
DRWN 31 Drawing Page(s)
LN.CNT 6442

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention teaches a novel approach of creating biocompatible surfaces, said surfaces being capable of functionally interact with biological material. Said biocompatible surfaces comprise at least two components, such as a hydrophobic substratum and a macromolecule of hydrophilic nature, which, in a cooperativity, form together the novel biocompatible surfaces. The novel approach is used on contacting said hydrophobic substratum with a laterally patterned monomolecular layer of said hydrophilic and flexible macromolecules, exhibiting a pronounced excluded volume. The thus formed two component surface is, in respect to polarity and morphology, a molecularly heterogeneous surface. Structural features of said macromolecular monolayer (as e.g. the layer thickness or its lateral density) are determined by: i) the structural features of the layer forming macromolecules (as e.g. their MW or their molecular architecture) and ii) the method of creating said monomolecular layer (as e.g. by physis- or chemisorbing, or by chemically binding said macromolecules). The structural features of the layer forming macromolecules(s) is in turn determined by synthesis. Amount and conformation and thus also biological activity of biological material (as e.g. polypeptides) which contact the novel biocompatible surface, is determined and maintained by the cooperative action of the underlying hydrophobic substratum and the macromolecular layer. In this way it becomes possible to maintain and control biological interactions between said contacted polypeptides and other biological compounds as e.g. cells, antibodies and the like. Consequently, the present invention aims to reduce and/or eliminate the deactivation and/or denaturation associated with the contacting of polypeptides and/or other biological material to a hydrophobic substratum surface.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 43 OF 48 USPATFULL on STN

AN 2005:30367 USPATFULL

TI Medical device with low magnetic susceptibility

IN Wang, Xingwu, Wellsville, NY, UNITED STATES

Greenwald, Howard Jay, Rochester, NY, UNITED STATES

PI US 2005025797 A1 20050203

AI US 2004-887521 A1 20040707 (10)

RLI Continuation-in-part of Ser. No. US 2004-867517, filed on 14 Jun 2004, PENDING Continuation-in-part of Ser. No. US 2004-810916, filed on 26 Mar 2004, PENDING Continuation-in-part of Ser. No. US 2004-808618, filed on 24 Mar 2004, PENDING Continuation-in-part of Ser. No. US 2004-786198, filed on 25 Feb 2004, PENDING Continuation-in-part of Ser. No. US 2004-780045, filed on 17 Feb 2004, PENDING Continuation-in-part of Ser. No. US 2003-747472, filed on 29 Dec 2003, PENDING Continuation-in-part of Ser. No. US 2003-744543, filed on 22 Dec 2003, PENDING Continuation-in-part of Ser. No. US 2003-442420, filed on 21 May 2003, PENDING Continuation-in-part of Ser. No. US 2003-409505, filed on 8 Apr 2003, GRANTED, Pat. No. US 6815609

DT Utility

FS APPLICATION

LREP HOWARD J. GREENWALD P.C., 349 W. COMMERCIAL STREET SUITE 2490, EAST ROCHESTER, NY, 14445-2408

CLMN Number of Claims: 137

ECL Exemplary Claim: 1

DRWN 42 Drawing Page(s)

LN.CNT 17461

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An assembly that contains a medical device and biological material within which the medical device is disposed. The assembly has a magnetic susceptibility within the range of plus or minus $1 \pm 10 \text{ sup.}^{-3}$ centimeter-gram-seconds

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 44 OF 48 USPATFULL on STN

AN 2004:321764 USPATFULL

TI Therapeutic assembly

IN Wang, Xingwu, Wellsville, NY, UNITED STATES

Greenwald, Howard J., Rochester, NY, UNITED STATES

Lanzafame, John, Victor, NY, UNITED STATES

Weiner, Michael L., Webster, NY, UNITED STATES

Connelly, Patrick R., Rochester, NY, UNITED STATES

PI US 2004254419 A1 20041216

AI US 2004-867517 A1 20040614 (10)

RLI Continuation-in-part of Ser. No. US 2004-810916, filed on 26 Mar 2004, PENDING Continuation-in-part of Ser. No. US 2004-808618, filed on 24 Mar 2004, PENDING Continuation-in-part of Ser. No. US 2004-786198, filed on 25 Feb 2004, PENDING Continuation-in-part of Ser. No. US 2004-780045, filed on 17 Feb 2004, PENDING Continuation-in-part of Ser. No. US 2003-747472, filed on 29 Dec 2003, PENDING Continuation-in-part of Ser. No. US 2003-744543, filed on 22 Dec 2003, PENDING Continuation-in-part of Ser. No. US 2003-409505, filed on 8 Apr 2003, PENDING Continuation-in-part of Ser. No. US 2003-442420, filed on 21 May 2003, PENDING

DT Utility

FS APPLICATION

LREP HOWARD J. GREENWALD P.C., 349 W. COMMERCIAL STREET SUITE 2490, EAST ROCHESTER, NY, 14445-2408

CLMN Number of Claims: 175

ECL Exemplary Claim: CLM-1-177

DRWN 40 Drawing Page(s)

LN.CNT 16208

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A therapeutic assembly that contains a therapeutic agent, a cytotoxic radioactive material, and a nanomagnetic material with nanomagnetic particles. The nanomagnetic particles have an average particle size of less than about 100 nanometers; and the average coherence length between adjacent nanomagnetic particles is less than 100 nanometers. The nanomagnetic material has a saturation magnetization of from about 2 to about 3000 electromagnetic units per cubic centimeter, a phase transition temperature of from about 40 to about 200 degrees Celsius, and a saturation magnetization of from about 2 to about 3,000 electromagnetic units per cubic centimeter

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 45 OF 48 USPATFULL on STN

AN 2004:274830 USPATFULL

TI Methods and apparatus for treatment of aneurysmal tissue

IN Brin, David S., Santa Rosa, CA, UNITED STATES

Tseng, David, Santa Rosa, CA, UNITED STATES

PI US 2004215335 A1 20041028

AI US 2003-423192 A1 20030425 (10)

DT Utility

FS APPLICATION

LREP MEDTRONIC VASCULAR, INC., IP LEGAL DEPARTMENT, 3576 UNOCAL PLACE, SANTA ROSA, CA, 95403

CLMN Number of Claims: 29
 ECL Exemplary Claim: 1
 DRWN 2 Drawing Page(s)
 LN.CNT 855
 AB The present invention encompasses methods and apparatus for aiding aneurysm repair.

L18 ANSWER 46 OF 48 USPATFULL on STN
 AN 2003:270829 USPATFULL
 TI Process for producing information recording material and coating solutions for use therein
 IN Yokota, Yasuro, Tokyo, JAPAN
 Shiraishi, Masato, Tokyo, JAPAN
 PI US 2003190432 A1 20031009
 US 6746718 B2 20040608
 AI US 2002-265911 A1 20021008 (10)
 RLI Continuation of Ser. No. WO 2001-JP2497, filed on 27 Mar 2001, UNKNOWN
 PRAI JP 2000-109769 20000411
 JP 2000-354743 20001121
 JP 2000-388227 20001221

DT Utility
 FS APPLICATION
 LREP NIXON & VANDERHYE P.C., 1100 North Glebe Road, 8th Floor, Arlington, VA, 22201

CLMN Number of Claims: 17
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 3223

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Concerning a process for producing an information recording material having an information recording layer formed on a substrate, there are disclosed (1) a method of curtain-coating a coating composition film comprising two coating solution films of which the viscosity increases when the two coating solution films are brought into contact, or mixed, with each other and an intermediate coating solution film that is for isolating said two coating solution films one from the other and is provided between said two coating solution films, (2) a method of curtain-coating a coating composition film comprising at least one set of adjacent two layers of which the viscosity increases with the passage of time when the two layers are brought into contact, or mixed, with each other, (3) a method of applying water or an aqueous solution to a substrate surface and curtain-coating the substrate in a non-dry state with a coating composition film made of a plurality of layers, and (4) a method of curtain-coating a coating composition film having, as a lowermost layer, a coating solution having a water content of at least 90 % by weight.

According to the method of the present invention, there can be produced an information recording material particularly excellent in quality of applied layers and excellent in various properties with good productivity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 47 OF 48 USPAT2 on STN
 AN 2005:318834 USPAT2
 TI Compositions and methods for treating diverticular disease
 IN Hunter, William L, Vancouver, CANADA
 Toleikis, Philip M, Vancouver, CANADA
 Gravett, David M, Vancouver, CANADA

Avelar, Rui, Vancouver, CANADA
 Guan, Dechi, Vancouver, CANADA
 PA Angiotech International AG, Zug, SWITZERLAND (non-U.S. corporation)
 PI US 7241736 B2 20070710
 AI US 2005-129763 20050512 (11)
 RLI Continuation-in-part of Ser. No. US 2004-986230, filed on 10 Nov 2004,
 PENDING
 PRAI US 2004-586861P 20040709 (60)
 US 2004-578471P 20040609 (60)
 US 2003-523908P 20031120 (60)
 US 2003-524023P 20031120 (60)
 US 2003-518785P 20031110 (60)
 DT Utility
 FS GRANTED
 EXNAM Primary Examiner: Monshipouri, Maryam; Assistant Examiner: Tsay, Marsha
 LREP Seed IP Law Group PLLC
 CLMN Number of Claims: 26
 ECL Exemplary Claim: 1
 DRWN 15 Drawing Figure(s); 15 Drawing Page(s)
 LN.CNT 18529
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB Agents, compositions, and implants are provided herein for treating
 diverticular disease (e.g., diverticulosis and diverticulitis). In
 particular, fibrosis-inducing agents, hemostatic agents, and/or
 anti-infective agents, or compositions containing one or more of these
 agents are provided for use in methods for treating diverticular
 disease.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 48 OF 48 USPAT2 on STN
 AN 2003:270829 USPAT2
 TI Process of curtain for producing an information recording material
 IN Yokota, Yasuro, Tokyo, JAPAN
 PA Mitsubishi Paper Mills Ltd., Tokyo, JAPAN (non-U.S. corporation)
 PI US 6746718 B2 20040608
 AI US 2002-265911 20021008 (10)
 RLI Continuation of Ser. No. WO 2001-JP2497, filed on 27 Mar 2001
 PRAI JP 2000-109769 20000411
 JP 2000-354743 20001121
 JP 2000-388227 20001221
 DT Utility
 FS GRANTED
 EXNAM Primary Examiner: Bareford, Katherine A.
 LREP Nixon & Vanderhye P.C.
 CLMN Number of Claims: 4
 ECL Exemplary Claim: 1
 DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
 LN.CNT 2942
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB An information recording material having an information recording layer
 formed on a substrate formed by applying by curtain-coating a coating
 film comprising two coating solution films of which the viscosity
 increases when the two coating solution films are brought into contact,
 or mixed, with each other. An intermediate coating solution film for
 isolating the two coating solution films one from the other and is
 provided between the two coating solution films. Alternatively, a
 curtain-coating composition film having at least one set of adjacent two
 layers of which the viscosity increases with the passage of time when
 the two layers are brought into contact, or mixed, with each other.
 Information recording materials having particularly excellent quality of

applied layers and excellent in various properties with good productivity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s chitooligo?

L19 2691 CHITOOLOGO?

=> s l19 and (Da or Dalton)

L20 136 L19 AND (DA OR DALTON)

=> s l20 and degree

L21 89 L20 AND DEGREE

=> s l21 and (method or process)

6 FILES SEARCHED...

12 FILES SEARCHED...

24 FILES SEARCHED...

L22 58 L21 AND (METHOD OR PROCESS)

=> dis l22 1-58 bib abs

L22 ANSWER 1 OF 58 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2006:909274 CAPLUS

DN 145:342198

TI Process for preparing heparolysate injection

IN Wang, Wei

PA Pharmaceutical Factory, Baiqiuen Medical University, Peop. Rep. China

SO Faming Zhuanli Shengqing Gongkai Shuomingshu, 6pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1824287	A	20060830	CN 2005-10119094	20051221
PRAI	CN 2005-10119094		20051221		

AB The process comprises preparing bovine or porcine liver, removing connective tissue, mixing with injection water a ratio of 0.8-0.82:1, homogenizing, heating to 50-51.degree., adjusting pH to 7.0-7.5 with NaOH, adding pancreatin, hydrolyzing at 50-51.degree. for 1-1.5 h, adding A.T.3942 proteinase at 1 g/L, further hydrolyzing for 4 h, adjusting pH to 5.8-6.0 with phosphoric acid, adding activated C at 1 g/L, heating till boiling, standing for 30 min, centrifuging at 3000 rpm for 30 min, mixing supernatant with chitooligosaccharide, filtrating to remove precipitate, adjusting pH to 7.2 with NaOH, filtrating with microporous membrane, ultrafiltering using filter membrane with cut-off of 10,000 Da to obtain heparolysate solution, adding cystine as protectant, diluting with injection water, sterilizing at 121.degree. for 30 min, checking to obtain the heparolysate injection. The process gave heparolysate with high quality for treating hepatitis and cirrhosis.

L22 ANSWER 2 OF 58 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2006:197068 CAPLUS

DN 144:463249

TI Acetyl xylan esterase-catalyzed deacetylation of chitin and chitosan

AU Morley, Krista L.; Chauve, Gregory; Kazlauskas, Romas; Dupont, Claude;

Shareck, Francois; Marchessault, Robert H.

CS Department of Chemistry, McGill University, Montreal, QC, H3A 2K6, Can.

SO Carbohydrate Polymers (2006), 63(3), 310-315

CODEN: CAPOD8; ISSN: 0144-8617

PB Elsevier B.V.

DT Journal

LA English

AB Acetyl xylan esterase catalyzes the hydrolysis of N-acetyl groups in chitinous materials of variable ds.p. and acetylation. The influence of substrate accessibility is most notable with substrate of high degree of acetylation (DA). The activity rises sharply as the number of acetyl groups in the substrates decreases and at about 24% DA enzyme activity reaches a maximum. Therefore, based on a multiple-attack mechanism we hypothesize that this maximum represents the ideal acetate microstructure for optimal activity of this enzyme. The enzyme partially deacetylates chitin oligomers DP 2-6 with a plateau in deacetylation observed at DP5. These results show that oligomer length is important for enzyme action. By combining successive alkaline and enzymic deacetylation a process improvement for production of chitosan is suggested.

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 3 OF 58 CAPLUS COPYRIGHT 2008 ACS ON STN

AN 2004:828557 CAPLUS

DN 142:169542

TI Anticoagulant activity of heterochitosans and their oligosaccharide sulfates

AU Park, Pyo-Jam; Je, Jae-Young; Jung, Won-Kyo; Ahn, Chang-Bum; Kim, Se-Kwon
CS Department of Chemistry, Pukyong National University, Pusan, 608-737, S. Korea

SO Eur. Food Res. Technol. (2004), 219(5), 529-533

CODEN: EFRITQ; ISSN: 1438-2377

PB Springer GmbH

DT Journal

LA English

AB Three kinds of partially deacetylated heterochitosans (90, 75, and 50% deacetylated) were prepared from crab chitin by N-deacetylation with 40% sodium hydroxide solution for different durations. Nine kinds of heterochitooligosaccharides (hetero-COSs) with relatively high mol. wts. (5,000-10,000 Da; 90-HMWCOSs, 75-HMWCOSs, and 50-HMWCOSs), medium mol. wts. (1,000-5,000 Da; 90-MMWCOSs, 75-MMWCOSs, and 50-MMWCOSs), and low mol. wts. (below 1,000 Da; 90-LMWCOSs, 75-LMWCOSs, and 50-LMWCOSs) were prepared using an ultrafiltration membrane reactor system. In addition, their sulfated derivs. were prepared by a method using a trimethylaminesulfur trioxide, and the anticoagulant properties of the heterochitosans and their COS sulfates with different chain lengths and degrees of deacetylation were investigated. Clotting times in thrombin-time assay were prolonged in the presence of various concns. of the heterochitosans and their COS sulfates using normal human plasma. The 90%-deacetylated chitosan sulfate exhibited the highest anticoagulant activity among all the heterochitosans and their COS sulfates.

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 4 OF 58 CAPLUS COPYRIGHT 2008 ACS ON STN

AN 2003:553428 CAPLUS

DN 139:227154

TI Effects of chitin and chitosan derivatives on control of pathogenic fungi

AU Park, Ro-Dong; Jo, Kyu-Jong; Jo, You-Young; Jin, Yu-Lan; Kim, Kil-Yong;

Shim, Jae-Han; Kim, Yong-Woong

CS Department of Agricultural Chemistry and Institute of Agricultural Science and Technology, Chonnam National University, Gwangju, 500-757, S. Korea

SO Advances in Chitin Science (2002), 5, 255-259
CODEN: ACSCFF
PB National Metal and Materials Technology Center
DT Journal
LA English
AB

Chitosan solubilized in acetic acid showed much higher and more consistent antifungal activity compared with the chitosan solubilized in HCl. The antifungal activity was not significantly affected with the DA (degree of deacetylation) range of 57.3-99.2% but much higher than that of chitin. Regarding the effect of water-soluble and low mol. weight chitosan (DA 57.3%) against 6 plant pathogens, *Monosporascus cannonballus* and *Pythium irregulare* were the most susceptible to the chitosan, and *Fusarium oxysporum* and *F. graminearum* were the most resistant. At the concentration of 2.5 mg/mL, the growth of most pathogens except *F. oxysporum* were almost completely inhibited. The values of MIC50 were dependent on both DA of chitosan and plant pathogens. Chitosan of DA 57.3% showed the lowest MIC50 ranging <0.1-1.8 mg/mL and that of DA 84.7% showed the highest MIC50 ranging <0.4-4.0 mg/mL depending on the pathogens. The conjugates of chitooligosaccharides (COS) with amino acids were also synthesized and their antifungal activity was compared with those of chitosan. COS-Gln and COS-Asn exhibited strong antifungal activity and their MIC50 values were much lower than those of the chitosan with DA 57.3%. These results suggest that the antifungal effect of chitosan is related to the solubilization method, degree of deacetylation, mol. modification, and fungal species.

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 5 OF 58 CAPLUS COPYRIGHT 2008 ACS ON STN
AN 1998:371765 CAPLUS
DN 129:16297

TI Preparation of higher N-acetylchitooligosaccharides in high yields
AU Aiba, Sei-ichi; Muraki, Einosuke
CS Dep. Organic Materials, Osaka National Research Inst., Ikeda, 563-8577, Japan

SO Kichin, Kitosan Kenkyu (1998), 4(2), 124-125
CODEN: KKKEFB; ISSN: 1340-9778

PB Nippon Kichin, Kitosan Gakkai
DT Journal
LA Japanese

AB The purpose of this study is to develop the method for preparing N-acetylchitooligosaccharides [(GlcNAc)_n] with high d.p. (d.p.) by enzymic and chemical reactions. Chitosans with various degrees of N-acetylation (DA) were hydrolyzed by enzymes and hydrolyzates were acetylated with acetic anhydride. (GlcNAc)_n (n=1,apprx.7) were detected by HPLC. The yield of hexaose was more than 20% when using lipase, cellulase, and hemicellulase preps. The mixture (55 mg) of pentamer (11%), hexamer (69%), and heptamer (18%) was obtained by selective precipitation from aqueous solution by adding methanol, starting from chitosan (200 mg) with DA of 22%. The hydrolysis of chitosans with DA of 10,apprx.30% by these enzymes followed by N-acetylation is suitable to prepare higher (GlcNAc)_n.

L22 ANSWER 6 OF 58 CAPLUS COPYRIGHT 2008 ACS ON STN
AN 1996:276751 CAPLUS
DN 125:33973

TI Preparation of N-acetylchitooligosaccharides by hydrolysis of chitosan with enzymes followed by N-acetylation
AU Aiba, Sei-ichi; Muraki, Einosuke

CS Functional Polymer Section, Osaka National Research Institute, Osaka, 563,
Japan

SO Advances in Chitin Science (1996), 1, 192-197
CODEN: ACSCFF

PB Jacques Andre

DT Journal

LA English

AB The purpose of this study is to develop the method for preparing
N-acetylchitooligosaccharides [(GlcNAc)_n] with high d.p. by enzymic and
chemical reactions. Chitosans with various degrees of
N-acetylation (DA) were hydrolyzed by enzymes and hydrolyzates
were acetylated with acetic anhydride. (GlcNAc)_n (n=1.apprx.7) were
detected in the reaction mixts. by HPLC. The yield of (GlcNAc)₆ was more
than 20% when using lipase, cellulase, and hemicellulase preps. The
mixture of pentamer (13%), hexamer (72%), and heptamer (15%) was obtained by
selective precipitation from aqueous solution by adding methanol. The yield
was 51mg
from chitosan (200mg) with a DA of 22%. The hydrolysis of
chitosans with DA of 10.apprx.30% by these enzymes followed by
N-acetylation is more suitable to prepare higher (GlcNAc)_n.

L22 ANSWER 7 OF 58 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on
STN

AN 2004:939569 SCISEARCH

GA The Genuine Article (R) Number: 864DI

TI Anticoagulant activity of heterochitosans and their oligosaccharide
sulfates

AU Park P J; Je J Y; Jung W K; Ahn C B; Kim S K (Reprint)

CS Pukyong Natl Univ, Dept Chem, Pusan 608737, South Korea (Reprint); Yosu
Natl Univ, Dept Food Sci & Nutr, Yosu 550749, South Korea
sknkim@mail.pknu.ac.kr

CYA South Korea

SO EUROPEAN FOOD RESEARCH AND TECHNOLOGY, (OCT 2004) Vol. 219, No. 5, pp.
529-533.
ISSN: 1438-2377.

PB SPRINGER, 233 SPRING STREET, NEW YORK, NY 10013 USA.

DT Article; Journal

LA English

REC Reference Count: 35

ED Entered STN: 18 Nov 2004
Last Updated on STN: 18 Nov 2004
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Three kinds of partially deacetylated heterochitosans, 90%
deacetylated chitosan, 75% deacetylated chitosan and 50% deacetylated
chitosan, were prepared from crab chitin by N-deacetylation with 40%
sodium hydroxide solution for different durations. Nine kinds of
heterochitooligosaccharides (hetero-COSs) with relatively high molecular
weights (5,000-10,000 Da; 90-HMWCOs, 75-HMWCOs, and
50-HMWCOs), medium molecular weights (1,000-5,000 Da;
90-MMWCOs, 75-MMWCOs, and 50-MMWCOs), and low molecular weights (below
1,000 Da; 90-LMWCOs, 75-LMWCOs, and 50-LMWCOs) were prepared
using an ultrafiltration membrane reactor system, respectively. In
addition, their sulfated derivatives were prepared by a method
using a trimethylamine-sulfur trioxide, and the anticoagulant properties
of the heterochitosans and their COS sulfates with different chain lengths
and degrees of deacetylation were investigated. Clotting times
in thrombin-time assay were prolonged in the presence of various
concentrations of the heterochitosans and their COS sulfates using normal
human plasma. The 90% deacetylated chitosan sulfate exhibited the highest
anticoagulant activity among all the heterochitosans and their COS
sulfates.

L22 ANSWER 8 OF 58 USPATFULL on SIN
 AN 2008:92781 USPATFULL
 TI NOVEL ANTIGEN-BINDING POLYPEPTIDES AND THEIR USES
 IN CHO, Ho Sung, San Diego, CA, UNITED STATES
 DANIEL, Thomas O., La Jolla, CA, UNITED STATES
 WILSON, Troy E., San Marino, CA, UNITED STATES
 CUJEC, Thomas P., San Diego, CA, UNITED STATES
 TIAN, Feng, San Diego, CA, UNITED STATES
 HAYS, Anna-Maria, San Diego, CA, UNITED STATES
 KIMMEL, Bruce E., San Diego, CA, UNITED STATES
 HO, Lillian, San Diego, CA, UNITED STATES
 PA AMBRX, INC., La Jolla, CA, UNITED STATES, 92037 (U.S. corporation)
 PI US 2008081038 A1 20080403
 AI US 2007-873372 A1 20071016 (11)
 RLI Continuation of Ser. No. US 2005-155909, filed on 17 Jun 2005, PENDING
 PRAI US 2005-654018P 20050217 (60)
 US 2005-648222P 20050128 (60)
 US 2004-581334P 20040618 (60)
 DT Utility
 FS APPLICATION
 LREP ATTN: JOHN W. WALLEN, III, AMBRX, INC., 10975 NORTH TORREY PINES ROAD,
 SUITE 100, LA JOLLA, CA, 92037, US
 CLMN Number of Claims: 23
 ECL Exemplary Claim: 1
 DRWN 21 Drawing Page(s)
 LN.CNT 9785
 AB Novel antigen-binding polypeptides (ABP) and uses thereof are provided.

L22 ANSWER 9 OF 58 USPATFULL on SIN
 AN 2008:65179 USPATFULL
 TI LysM Receptor-Like Kinases To Improve Plant Defense Response Against
 Fungal Pathogens
 IN Wan, Jinrong, Columbia, MO, UNITED STATES
 Stacey, Gary, Columbia, MO, UNITED STATES
 Stacey, Minviluz, Columbia, MO, UNITED STATES
 Zhang, Xuecheng, Columbia, MO, UNITED STATES
 PA UNIVERSITY OF MISSOURI BOARD OF CURATORS, Columbia, MO, UNITED STATES,
 65211 (U.S. corporation)
 PI US 2008057093 A1 20080306
 AI US 2007-835328 A1 20070807 (11)
 PRAI US 2006-836084P 20060807 (60)
 DT Utility
 FS APPLICATION
 LREP LATHROP & GAGE LC, 4845 PEARL EAST CIRCLE, SUITE 300, BOULDER, CO,
 80301, US
 CLMN Number of Claims: 34
 ECL Exemplary Claim: 1
 DRWN 22 Drawing Page(s)
 LN.CNT 7838
 AB Perception of chitin fragments (chitooligosaccharides) is an
 important first step in plant defense response against fungal pathogen.
 LysM receptor-like kinases (LysM RLKs) are instrumental in this
 perception process. LysM RLKs also play a role in activating
 transcription of chitin-responsive genes (CRGs) in plants. Mutations in
 the LysM kinase receptor genes or the downstream CRGs may affect the
 fungal susceptibility of a plant. Mutations in LysM RLKs or transgenes
 carrying the same may be beneficial in imparting resistance against
 fungal pathogens.

L22 ANSWER 10 OF 58 USPATFULL on STN
 AN 2008:57936 USPATFULL
 TI Methods for Expression and Purification of Recombinant Human Growth Hormone
 IN BUECHLER, Ying, Carlsbad, CA, UNITED STATES
 LIEU, Ricky, San Diego, CA, UNITED STATES
 ONG, Michael, San Diego, CA, UNITED STATES
 BUSSELL, Stuart, Carlsbad, CA, UNITED STATES
 KNUDSEN, Nick, San Diego, CA, UNITED STATES
 CHO, Ho Sung, San Diego, CA, UNITED STATES
 PA AMBRX, INC., La Jolla, CA, UNITED STATES, 92037 (U.S. corporation)
 PI US 2008050777 A1 20080228
 AI US 2007-874086 A1 20071017 (11)
 RLI Continuation of Ser. No. US 2005-315752, filed on 21 Dec 2005, PENDING
 PRAI US 2005-727968P 20051017 (60)
 US 2005-680977P 20050513 (60)
 US 2005-655744P 20050223 (60)
 US 2004-638616P 20041222 (60)
 DT Utility
 FS APPLICATION
 LREP ATTN: JOHN W. WALLEN, III, AMBRX, INC., 10975 NORTH TORREY PINES ROAD, SUITE 100, LA JOLLA, CA, 92037, US
 CLMN Number of Claims: 12
 ECL Exemplary Claim: 1
 DRWN 5 Drawing Page(s)
 LN.CNT 8303
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB The present invention relates generally to the production, purification, and isolation of human growth hormone (hGH). More particularly, the invention relates to the production, purification, and isolation of substantially purified hGH from recombinant host cells or culture medium including, for example, yeast, insect, mammalian and bacterial host cells. The process of the present invention is also useful for purification of hGH linked to polymers or other molecules.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 11 OF 58 USPATFULL on STN
 AN 2008:57533 USPATFULL
 TI NOVEL ANTIGEN-BINDING POLYPEPTIDES AND THEIR USES
 IN CHO, Ho Sung, San Diego, CA, UNITED STATES
 DANIEL, Thomas O., La Jolla, CA, UNITED STATES
 WILSON, Troy E., San Marino, CA, UNITED STATES
 CUJEC, Thomas P., San Diego, CA, UNITED STATES
 TIAN, Feng, San Diego, CA, UNITED STATES
 HAYS, Anna-Maria, San Diego, CA, UNITED STATES
 KIMMEL, Bruce E., San Diego, CA, UNITED STATES
 HO, Lillian, San Diego, CA, UNITED STATES
 PA AMBRX, INC., La Jolla, CA, UNITED STATES, 92037 (U.S. corporation)
 PI US 2008050374 A1 20080228
 AI US 2007-873255 A1 20071016 (11)
 RLI Continuation of Ser. No. US 2005-155909, filed on 17 Jun 2005, PENDING
 PRAI US 2005-654018P 20050217 (60)
 US 2005-648222P 20050128 (60)
 US 2004-581334P 20040618 (60)
 DT Utility
 FS APPLICATION
 LREP ATTN: JOHN W. WALLEN, III, AMBRX, INC., 10975 NORTH TORREY PINES ROAD, SUITE 100, LA JOLLA, CA, 92037, US
 CLMN Number of Claims: 23

ECL Exemplary Claim: 1
DRWN 21 Drawing Page(s)
LN.CNT 9784
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel antigen-binding polypeptides (ABP) and uses thereof are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 12 OF 58 USPATFULL on STN
AN 2008:39013 USPATFULL
TI Annotated Plant Genes
IN Cheikh, Nordine, 16534 Baxter Forest Ridge, Chesterfield, MO, UNITED STATES 63005
Liu, Jingdong, 2200 Sycamore Drive, Chesterfield, MO, UNITED STATES 63017
PI US 2008034453 A1 20080207
AI US 1999-371146 A1 19990809 (9)
RLI Continuation-in-part of Ser. No. US 1999-9304517, filed on 6 May 1999, abandoned
DT Utility
FS APPLICATION
LREP ARNOLD & PORTER, LLP, 555 TWELFTH STREET, N.W., ATTN: IP DOCKETING, WASHINGTON, DC, 20004, UNITED STATES
CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 16595
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is in the field of plant biochemistry. More specifically the invention relates to nucleic acid sequences from plant cells, in particular, nucleic acid sequences from maize and soybean. The invention encompasses nucleic acid molecules that encode proteins and fragments of proteins. In addition, the invention also encompasses proteins and fragments of proteins so encoded and antibodies capable of binding these proteins or fragments. The invention also relates to methods of using the nucleic acid molecules, proteins and fragments of proteins, and antibodies, for example for genome mapping, gene identification and analysis, plant breeding, preparation of constructs for use in plant gene expression, and transgenic plants.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 13 OF 58 USPATFULL on STN
AN 2007:328684 USPATFULL
TI Carbohydrate-Ligand Conjugates and Their Application for the Analysis of Carbohydrate-Protein Interaction
IN Suda, Yasuo, Kagoshima, JAPAN
PA JAPAN SCIENCE AND TECHNOLOGY AGENCY, Saitama, JAPAN, 332-0012 (non-U.S. corporation)
NATIONAL UNIVERSITY CORPORATION KAGOSHIMA UNIVERSITY, Kagoshima, JAPAN, 890-8580 (non-U.S. corporation)
PI US 2007287195 A1 20071213
AI US 2005-590045 A1 20050218 (10)
WO 2005-JP3220 20050218
20070717 PCT 371 date
PRAI JP 2004-41994 20040218
DT Utility
FS APPLICATION
LREP MORRISON & FOERSTER LLP, 425 MARKET STREET, SAN FRANCISCO, CA, 94105-2482, US
CLMN Number of Claims: 10

ECL Exemplary Claim: 1
DRWN 23 Drawing Page(s)
LN.CNT 2143

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel ligand conjugate which is effectively utilizable for analyzing a function of a protein; a ligand-supporting object; and a method of analyzing a protein. The ligand conjugate has a structure which comprises: a linker compound having a structure represented by the following General Formula (1): ##STR1## (wherein n and p each is an integer of 0 to 6) in which X is a structure comprising one, two, or three hydrocarbon derivative chains which have an aromatic amino group at the end and may have a carbon-nitrogen bond in the main chain, Y is a hydro-carbon structure containing one or more sulfur atoms, and Z is a straight-chain structure comprising a carbon-carbon bond or carbon-oxygen bond; and a sugar which has a reducing end and is bonded to the linker compound through the aromatic amino group.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 14 OF 58 USPATFULL on STN

AN 2007:147607 USPATFULL

TI Targeted glycosaminoglycan polymers by polymer grafting and methods of making and using the same

IN DeAngelis, Paul L., Edmond, OK, UNITED STATES

Jing, Wei, Edmond, OK, UNITED STATES

PI US 2007128703 A1 20070607

AI US 2007-651379 A1 20070109 (11)

RLI Continuation of Ser. No. US 2003-642248, filed on 15 Aug 2003, PENDING
Continuation-in-part of Ser. No. US 2002-195908, filed on 15 Jul 2002, ABANDONED
Continuation-in-part of Ser. No. US 1999-437277, filed on 10 Nov 1999, GRANTED, Pat. No. US 6444447
Continuation-in-part of Ser. No. US 1999-283402, filed on 1 Apr 1999, ABANDONED
Continuation-in-part of Ser. No. US 2001-842484, filed on 25 Apr 2001, ABANDONED
Continuation-in-part of Ser. No. US 2002-142143, filed on 8 May 2002, PENDING

PRAI US 2002-404356P 20020816 (60)

US 2003-479432P 20030618 (60)

US 2003-491362P 20030731 (60)

US 1998-107929P 19981111 (60)

US 1998-80414P 19980402 (60)

US 2000-199538P 20000425 (60)

US 2001-289554P 20010508 (60)

DT Utility

FS APPLICATION

LREP DUNLAP, CODDING & ROGERS P.C., PO BOX 16370, OKLAHOMA CITY, OK, 73113, US

CLMN Number of Claims: 30

ECL Exemplary Claim: 1

DRWN 41 Drawing Page(s)

LN.CNT 7926

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methodology for polymer grafting by a polysaccharide synthase and, more particularly, polymer grafting using the hyaluronate or chondroitin or heparin/heparosan synthases from Pasteurella, in order to create a variety of glycosaminoglycan oligosaccharides having a natural or chimeric or hybrid sugar structure with a targeted size that are substantially monodisperse in size.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 15 OF 58 USPATFULL on STN

AN 2007:134507 USPATFULL
 TI Natural, chimeric and hybrid glycosaminoglycan polymers and methods making and using same
 IN DeAngelis, Paul L., Edmond, OK, UNITED STATES
 Jing, Wei, Edmond, OK, UNITED STATES
 PI US 2007/117188 A1 20070524
 AI US 2007-698311 A1 20070125 (11)
 RLI Continuation of Ser. No. US 2002-195908, filed on 15 Jul 2002, ABANDONED
 Continuation-in-part of Ser. No. US 1999-437277, filed on 10 Nov 1999, GRANTED, Pat. No. US 6444447 Continuation-in-part of Ser. No. US 1999-283402, filed on 1 Apr 1999, ABANDONED Continuation-in-part of Ser. No. US 2001-842484, filed on 25 Apr 2001, ABANDONED Continuation-in-part of Ser. No. US 2002-142143, filed on 8 May 2002, PENDING
 PRAI US 2001-305263P 20010713 (60)
 US 1998-107929P 19981111 (60)
 US 1998-80414P 19980402 (60)
 US 2000-199538P 20000425 (60)
 US 2001-289554P 20010508 (60)
 US 2002-350642P 20020122 (60)
 US 2001-345497P 20011109 (60)
 US 2002-391787P 20020620 (60)
 DT Utility
 FS APPLICATION
 LREP DUNLAP, CODDING & ROGERS P.C., PO BOX 16370, OKLAHOMA CITY, OK, 73113, US
 CLMN Number of Claims: 19
 ECL Exemplary Claim: 1
 DRWN 35 Drawing Page(s)
 LN.CNT 9150
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB The present invention relates to methodology for polymer grafting by a polysaccharide synthase and, more particularly, polymer grafting using the hyaluronate or chondroitin or heparin/heparosan synthases from Pasteurella multocida, in order to create a variety of glycosaminoglycan oligosaccharides having a natural or chimeric or hybrid sugar structure.
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 L22 ANSWER 16 OF 58 USPATFULL on STN
 AN 2007:134503 USPATFULL
 TI In vivo incorporation of unnatural amino acids
 IN Schultz, Peter, La Jolla, CA, UNITED STATES
 Wang, Lei, San Diego, CA, UNITED STATES
 Anderson, John Christopher, San Diego, CA, UNITED STATES
 Chin, Jason William, Cambridge, UNITED KINGDOM
 Liu, David R., Lexington, MA, UNITED STATES
 Magliery, Thomas J., North Haven, CT, UNITED STATES
 Meggers, Eric L., Philadelphia, PA, UNITED STATES
 Mehl, Ryan A., Lancaster, PA, UNITED STATES
 Pastrnak, Miro, San Diego, CA, UNITED STATES
 Santoro, Stephen William, Cambridge, MA, UNITED STATES
 Zhang, Zhiwen, San Diego, CA, UNITED STATES
 PA The Scripps Research Institute (U.S. corporation)
 The Regents of the University of California (U.S. corporation)
 PI US 2007/117184 A1 20070524
 AI US 2006-583551 A1 20061018 (11)
 RLI Continuation of Ser. No. US 2004-17550, filed on 17 Dec 2004, PENDING
 Continuation of Ser. No. US 2002-126927, filed on 19 Apr 2002, GRANTED, Pat. No. US 7045337
 PRAI US 2001-285030P 20010419 (60)
 US 2002-355514P 20020206 (60)

DT Utility
FS APPLICATION
LREP QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA,
94501, US
CLMN Number of Claims: 12
ECL Exemplary Claim: 1-140
DRWN 37 Drawing Page(s)
LN.CNT 8634
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides methods and compositions for in vivo
incorporation of unnatural amino acids. Also provided are compositions
including proteins with unnatural amino acids.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 17 OF 58 USPATFULL on STN
AN 2006:273950 USPATFULL
TI In vivo incorporation of unnatural amino acids
IN Shultz, Peter, La Jolla, CA, UNITED STATES
Wang, Lei, San Diego, CA, UNITED STATES
Anderson, John Christopher, San Diego, CA, UNITED STATES
Chin, Jason William, Cambridge, UNITED KINGDOM
Liu, David R., Lexington, MA, UNITED STATES
Magliery, Thomas J., North Haven, CT, UNITED STATES
Meggers, Eric L., Philadelphia, PA, UNITED STATES
Mehl, Ryan A., Lancaster, PA, UNITED STATES
Pastmark, Miro, San Diego, CA, UNITED STATES
Santoro, Steven William, Cambridge, MA, UNITED STATES
Zhang, Zhiwen, San Diego, CA, UNITED STATES
PA The Scripps Research Institute (U.S. corporation)
The Regents of University of California (U.S. corporation)
PI US 2006233744 A1 20061019
AI US 2005-254161 A1 20051018 (11)
RLI Continuation of Ser. No. US 2002-126927, filed on 19 Apr 2002, GRANTED,
Pat. No. US 7045337
PRAI US 2001-285030P 20010419 (60)
US 2002-35514P 20020206 (60)
DT Utility
FS APPLICATION
LREP QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA,
94501, US
CLMN Number of Claims: 5
ECL Exemplary Claim: 1-140
DRWN 37 Drawing Page(s)
LN.CNT 8680
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides methods and compositions for in vivo
incorporation of unnatural amino acids. Also provided are compositions
including proteins with unnatural amino acids.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 18 OF 58 USPATFULL on STN
AN 2006:255076 USPATFULL
TI Compositions containing, methods involving, and uses of
non-natural amino acids and polypeptides
IN Miao, Zhenwei, San Diego, CA, UNITED STATES
Liu, Junjie, San Diego, CA, UNITED STATES
Norman, Thea, San Diego, CA, UNITED STATES
Driver, Russell, Solana Beach, CA, UNITED STATES
PA Ambrx, Inc., La Jolla, CA, UNITED STATES (U.S. corporation)

PI US 2006217532 A1 20060928
 AI US 2005-313956 A1 20051221 (11)
 PRAI US 2004-638418P 20041222 (60)
 US 2004-638527P 20041222 (60)
 US 2004-639195P 20041222 (60)
 US 2005-696210P 20050701 (60)
 US 2005-696302P 20050701 (60)
 US 2005-696068P 20050701 (60)
 DT Utility
 FS APPLICATION
 LREP WILSON SONSINI GOODRICH & ROSATI, 650 PAGE MILL ROAD, PALO ALTO, CA,
 94304-1050, US
 CLMN Number of Claims: 29
 ECL Exemplary Claim: 1
 DRWN 65 Drawing Page(s)
 LN.CNT 14302

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed herein are non-natural amino acids and polypeptides that include at least one non-natural amino acid, and methods for making such non-natural amino acids and polypeptides. The non-natural amino acids, by themselves or as a part of a polypeptide, can include a wide range of possible functionalities, but typical have at least one oxime, carbonyl, dicarbonyl, and/or hydroxylamine group. Also disclosed herein are non-natural amino acid polypeptides that are further modified post-translationally, methods for effecting such modifications, and methods for purifying such polypeptides. Typically, the modified non-natural amino acid polypeptides include at least one oxime, carbonyl, dicarbonyl, and/or hydroxylamine group. Further disclosed are methods for using such non-natural amino acid polypeptides and modified non-natural amino acid polypeptides, including therapeutic, diagnostic, and other biotechnology uses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 19 OF 58 USPATFULL on STN
 AN 2006:254833 USPATFULL
 TI Compositions containing, methods involving, and uses of non-natural amino acids and polypeptides
 IN Miao, Zhenwei, San Diego, CA, UNITED STATES
 Liu, Junjie, San Diego, CA, UNITED STATES
 Norman, Thea, San Diego, CA, UNITED STATES
 Driver, Russell, Solana Beach, CA, UNITED STATES
 PA Ambrx, Inc., La Jolla, CA, UNITED STATES (U.S. corporation)
 PI US 2006217289 A1 20060928
 AI US 2005-313305 A1 20051221 (11)
 PRAI US 2004-638418P 20041222 (60)
 US 2004-638527P 20041222 (60)
 US 2004-639195P 20041222 (60)
 US 2005-696210P 20050701 (60)
 US 2005-696302P 20050701 (60)
 US 2005-696068P 20050701 (60)
 DT Utility
 FS APPLICATION
 LREP WILSON SONSINI GOODRICH & ROSATI, 650 PAGE MILL ROAD, PALO ALTO, CA,
 94304-1050, US
 CLMN Number of Claims: 29
 ECL Exemplary Claim: 1
 DRWN 65 Drawing Page(s)
 LN.CNT 14401

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed herein are non-natural amino acids and polypeptides that

include at least one non-natural amino acid, and methods for making such non-natural amino acids and polypeptides. The non-natural amino acids, by themselves or as a part of a polypeptide, can include a wide range of possible functionalities, but typical have at least one oxime, carbonyl, dicarbonyl, and/or hydroxylamine group. Also disclosed herein are non-natural amino acid polypeptides that are further modified post-translationally, methods for effecting such modifications, and methods for purifying such polypeptides. Typically, the modified non-natural amino acid polypeptides include at least one oxime, carbonyl, dicarbonyl, and/or hydroxylamine group. Further disclosed are methods for using such non-natural amino acid polypeptides and modified non-natural amino acid polypeptides, including therapeutic, diagnostic, and other biotechnology uses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 20 OF 58 USPATFULL on STN
 AN 2006:227892 USPATFULL
 TI Compositions containing, methods involving, and uses of non-natural amino acids and polypeptides
 IN Miao, Zhenwei, San Diego, CA, UNITED STATES
 Liu, Junjie, San Diego, CA, UNITED STATES
 Norman, Thea, San Diego, CA, UNITED STATES
 Driver, Russell, Solana Beach, CA, UNITED STATES
 PA Ambrx, Inc., La Jolla, CA, UNITED STATES (U.S. corporation)
 PI US 2006194256 A1 20060831
 US 7332571 B2 20080219
 AI US 2005-313306 A1 20051221 (11)
 PRAI US 2004-638418P 20041222 (60)
 US 2004-638527P 20041222 (60)
 US 2004-639195P 20041222 (60)
 US 2005-696210P 20050701 (60)
 US 2005-696302P 20050701 (60)
 US 2005-696068P 20050701 (60)
 DT Utility
 FS APPLICATION
 LREP WILSON SONSINI GOODRICH & ROSATI, 650 PAGE MILL ROAD, PALO ALTO, CA, 94304-1050, US
 CLMN Number of Claims: 33
 ECL Exemplary Claim: 1
 DRWN 65 Drawing Page(s)
 LN.CNT 13847

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed herein are non-natural amino acids and polypeptides that include at least one non-natural amino acid and methods for making such non-natural amino acids and polypeptides. The non-natural amino acids, by themselves or as a part of a polypeptide, can include a wide range of possible functionalities, but typical have at least one oxime, carbonyl, dicarbonyl, and/or hydroxylamine group. Also disclosed herein are non-natural amino acid polypeptides that are further modified post-translationally, methods for effecting such modifications, and methods for purifying such polypeptides. Typically, the modified non-natural amino acid polypeptides include at least one oxime, carbonyl, dicarbonyl, and/or hydroxylamine group. Further disclosed are methods for using such non-natural amino acid polypeptides and modified non-natural amino acid polypeptides, including therapeutic, diagnostic, and other biotechnology uses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 21 OF 58 USPATFULL on STN

AN 2006:222245 USPATFULL
 TI Modified human growth hormone
 IN Cho, Ho Sung, San Diego, CA, UNITED STATES
 Daniel, Thomas O., La Jolla, CA, UNITED STATES
 DiMarchi, Richard D., Carmel, IN, UNITED STATES
 Hays, Anna-Maria, La Jolla, CA, UNITED STATES
 Wilson, Troy E., San Marino, CA, UNITED STATES
 Sim, Bee-Cheng, San Diego, CA, UNITED STATES
 Litzinger, David C., Poway, CA, UNITED STATES
 PA Ambrx, Inc., La Jolla, CA, UNITED STATES (U.S. corporation)
 PI US 2006189529 A1 20060824
 AI US 2005-316534 A1 20051221 (11)
 PRAI US 2004-638616P 20041222 (60)
 US 2005-727996P 20051017 (60)
 DT Utility
 FS APPLICATION
 LREP ATTN: JOHN W. WALLEN, III, AMBRX, INC., 10975 NORTH TORREY PINES ROAD,
 SUITE 100, LA JOLLA, CA, 92037, US
 CLMN Number of Claims: 79
 ECL Exemplary Claim: 1
 DRWN 36 Drawing Page(s)
 LN.CNT 11514
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB Modified growth hormone polypeptide and uses thereof are provided.
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 22 OF 58 USPATFULL on STN
 AN 2006:221686 USPATFULL
 TI Natural, chimeric and hybrid glycosaminoglycan polymers and
 methods of making and using same
 IN DeAngelis, Paul L., Edmond, OK, UNITED STATES
 PI US 2006188966 A1 20060824
 AI US 2002-195908 A1 20020715 (10)
 RLI Continuation-in-part of Ser. No. US 1999-437277, filed on 10 Nov 1999,
 GRANTED, Pat. No. US 6444447 Continuation-in-part of Ser. No. US
 1999-283402, filed on 1 Apr 1999, ABANDONED Continuation-in-part of Ser.
 No. US 2001-842484, filed on 25 Apr 2001, ABANDONED Continuation-in-part
 of Ser. No. US 2002-142143, filed on 8 May 2002, PENDING
 PRAI US 2001-305263P 20010713 (60)
 US 1998-107929P 19981111 (60)
 US 1998-80414P 19980402 (60)
 US 2000-199538P 20000425 (60)
 US 2001-289554P 20010508 (60)
 US 2001-345497P 20011109 (60)
 US 2002-350642P 20020122 (60)
 US 2002-391787P 20020620 (60)
 DT Utility
 FS APPLICATION
 LREP DUNLAP, CODDING & ROGERS P.C., PO BOX 16370, OKLAHOMA CITY, OK, 73113,
 US
 CLMN Number of Claims: 11
 ECL Exemplary Claim: 1-172
 DRWN 36 Drawing Page(s)
 LN.CNT 8978
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB The present invention relates to methodology for polymer grafting by a
 polysaccharide synthase and, more particularly, polymer grafting using
 the hyaluronate or chondroitin or heparin/heparosan synthases from
 Pasteurella multocida, in order to create a variety of glycosaminoglycan
 oligosaccharides having a natural or chimeric or hybrid sugar structure.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 23 OF 58 USPATFULL on STN
AN 2006:215048 USPATFULL
TI Polymer grafting by polysaccharide synthases
IN DeAngelis, Paul L., Edmond, OK, UNITED STATES
PI US 2006183203 A1 20060817
AI US 2006-409323 A1 20060424 (11)
RLI Continuation of Ser. No. US 2002-197153, filed on 16 Jul 2002, GRANTED,
Pat. No. US 7060469 Continuation-in-part of Ser. No. US 1999-437277,
filed on 10 Nov 1999, GRANTED, Pat. No. US 6444447
DT Utility
FS APPLICATION
LREP DUNLAP, CODDING & ROGERS P.C., PO BOX 16370, OKLAHOMA CITY, OK, 73113,
US
CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN 11 Drawing Page(s)
LN.CNT 3295

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methodology for polymer grafting by a
polysaccharide synthase and, more particularly, polymer grafting using
the hyaluronate synthase from Pasteurella multocida.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 24 OF 58 USPATFULL on STN
AN 2006:215043 USPATFULL
TI Methods for expression and purification of recombinant human
growth hormone
IN Buechler, Ying, Carlsbad, CA, UNITED STATES
Lieu, Ricky, San Diego, CA, UNITED STATES
Ong, Michael, San Diego, CA, UNITED STATES
Bussell, Stuart, Carlsbad, CA, UNITED STATES
Knudsen, Nick, San Diego, CA, UNITED STATES
Cho, Ho Sung, San Diego, CA, UNITED STATES
PA Ambrx, Inc., La Jolla, CA, UNITED STATES (U.S. corporation)
PI US 2006183198 A1 20060817
AI US 2005-315752 A1 20051221 (11)
PRAI US 2004-638616P 20041222 (60)
US 2005-655744P 20050223 (60)
US 2005-680977P 20050513 (60)
US 2005-727968P 20051017 (60)
DT Utility
FS APPLICATION
LREP ATTN: JOHN W. WALLEN, III, AMBRX, INC., 10975 NORTH TORREY PINES ROAD,
SUITE 100, LA JOLLA, CA, 92037, US
CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 8282

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates generally to the production, purification,
and isolation of human growth hormone (hGH). More particularly, the
invention relates to the production, purification, and isolation of
substantially purified hGH from recombinant host cells or culture medium
including, for example, yeast, insect, mammalian and bacterial host
cells. The process of the present invention is also useful for
purification of hGH linked to polymers or other molecules.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 25 OF 58 USPATFULL on STN
AN 2006:204492 USPATFULL
TI Chitinase encoding DNA molecules from cotton expressed preferentially in secondary walled cells during secondary wall deposition and a corresponding promoter
IN Haigler, Candace H., Raleigh, NC, UNITED STATES
Zhang, Hong, Lubbock, TX, UNITED STATES
Wu, Chunfa, Lubbock, TX, UNITED STATES
Zhang, Deshui, Sacramento, CA, UNITED STATES
PI US 2006174379 A1 20060803
AI US 2006-397479 A1 20060404 (11)
RLI Continuation of Ser. No. US 2003-350696, filed on 23 Jan 2003, PENDING
Continuation-in-part of Ser. No. US 2001-918083, filed on 30 Jul 2001, ABANDONED
DT Utility
FS APPLICATION
LREP NIXON PEABODY LLP - PATENT GROUP, CLINTON SQUARE, P.O. BOX 31051, ROCHESTER, NY, 14603-1051, US
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN 12 Drawing Page(s)
LN.CNT 4433

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to isolated nucleic acid molecules encoding endogenous cotton chitinases and corresponding promoters, which are preferentially expressed in secondary walled cells during secondary wall deposition. The polypeptide encoded by the nucleic acid molecule, a DNA construct linking the isolated nucleic acid molecule with a promoter, the DNA construct incorporated in an expression system, a host cell, a plant, or a plant seed are also disclosed. The present invention also relates to a DNA construct linking the isolated promoters with a second DNA as well as expression systems, host cells, plants, or plant seeds containing the DNA construct. Methods of imparting resistance to insects and fungi, regulating the fiber cellulose content, and methods of expressing a gene preferentially in secondary walled cells during secondary wall deposition are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 26 OF 58 USPATFULL on STN
AN 2006:181465 USPATFULL
TI Novel antigen-binding polypeptides and their uses
IN Cho, Ho Sung, San Diego, CA, UNITED STATES
Daniel, Thomas O., La Jolla, CA, UNITED STATES
Wilson, Troy E., San Marino, CA, UNITED STATES
Cujec, Thomas P., San Diego, CA, UNITED STATES
Tian, Feng, San Diego, CA, UNITED STATES
Hays, Anna-Maria, La Jolla, CA, UNITED STATES
Kimmel, Bruce E., San Diego, CA, UNITED STATES
Ho, Lillian, San Diego, CA, UNITED STATES
PA Ambrx, Inc., San Diego, CA, UNITED STATES (U.S. corporation)
PI US 2006153860 A1 20060713
AI US 2005-155909 A1 20050617 (11)
PRAI US 2004-581334P 20040618 (60)
US 2005-648222P 20050128 (60)
US 2005-654018P 20050217 (60)
DT Utility
FS APPLICATION
LREP ATTN: JOHN W. WALLEN, III, AMBRX, INC., 10975 NORTH TORREY PINES ROAD,

SUITE 100, LA JOLLA, CA, 92037, US
CLMN Number of Claims: 23
ECL Exemplary Claim: 1
DRWN 21 Drawing Page(s)
LN.CNT 9776
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel antigen-binding polypeptides (ABP) and uses thereof are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 27 OF 58 USPATFULL on STN
AN 2006:159892 USPATFULL
TI Formulations of human growth hormone comprising a non-naturally encoded amino acid
IN Hays, Anna-Maria, La Jolla, CA, UNITED STATES
Buechler, Ying, Carlsbad, CA, UNITED STATES
Litzinger, David C., Poway, CA, UNITED STATES
PA Ambrx, Inc., La Jolla, CA, UNITED STATES (U.S. corporation)
PI US 2006135427 A1 20060622
AI US 2005-316483 A1 20051221 (11)
PRAI US 2004-638616P 20041222 (60)
US 2005-680617P 20050513 (60)
US 2005-728035P 20051017 (60)
DT Utility
FS APPLICATION
LREP ATTN: JOHN W. WALLEN, III, AMBRX, INC., 10975 NORTH TORREY PINES ROAD, SUITE 100, LA JOLLA, CA, 92037, US
CLMN Number of Claims: 55
ECL Exemplary Claim: 1
DRWN 88 Drawing Page(s)
LN.CNT 8463
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Formulations of modified human growth hormone polypeptides are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 28 OF 58 USPATFULL on STN
AN 2006:137768 USPATFULL
TI Polymer grafting by polysaccharide synthases
IN DeAngelis, Paul L., Edmond, OK, UNITED STATES
PI US 2006116348 A1 20060601
AI US 2005-178560 A1 20050711 (11)
RLI Continuation of Ser. No. US 2002-184485, filed on 27 Jun 2002, ABANDONED
Continuation of Ser. No. US 1999-437277, filed on 10 Nov 1999, GRANTED,
Pat. No. US 6444447 Continuation-in-part of Ser. No. US 1999-283402,
filed on 1 Apr 1999, ABANDONED
PRAI US 1998-107929P 19981111 (60)
DT Utility
FS APPLICATION
LREP DUNLAP, CODDING & ROGERS P.C., PO BOX 16370, OKLAHOMA CITY, OK, 73113, US
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN 11 Drawing Page(s)
LN.CNT 2252
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to methodology for polymer grafting by a polysaccharide synthase and, more particularly, polymer grafting using the hyaluronate synthase from Pasteurella multocida. The present invention also relates to coatings for biomaterials wherein the coatings provide protective properties to the biomaterial and/or act as a

bioadhesive. Such coatings could be applied to electrical devices, sensors, catheters and any device which may be contemplated for use within a mammal. The present invention further relates to drug delivery matrices which are biocompatible and may comprise combinations of a biomaterial or a bioadhesive and a medicament or a medicament-containing liposome. The biomaterial and/or bioadhesive is a hyaluronic acid polymer produced by a hyaluronate synthase from *Pasteurella multocida*. The present invention also relates to the creation of chimeric molecules containing hyaluronic acid or hyaluronic acid-like chains attached to various compounds and especially carbohydrates or hydroxyl containing substances. The present invention also relates to a chondroitin synthase from *Pasteurella multocida* which is capable of producing polysaccharide polymers on an acceptor or primer molecule.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 29 OF 58 USPATFULL on STN

AN 2006:124698 USPATFULL

TI Polymer grafting by polysaccharide synthases using artificial sugar acceptors

IN DeAngelis, Paul L., Edmond, OK, UNITED STATES

PI US 2006105431 A1 20060518

AI US 2005-253453 A1 20051019 (11)

RLI Continuation-in-part of Ser. No. US 2005-178560, filed on 11 Jul 2005, PENDING Continuation of Ser. No. US 2002-184485, filed on 27 Jun 2002, ABANDONED Continuation of Ser. No. US 1999-437277, filed on 10 Nov 1999, GRANTED, Pat. No. US 6444447 Continuation-in-part of Ser. No. US 1999-283402, filed on 1 Apr 1999, ABANDONED Continuation-in-part of Ser. No. US 2004-814752, filed on 31 Mar 2004, PENDING Continuation-in-part of Ser. No. US 2002-142143, filed on 8 May 2002, PENDING Continuation-in-part of Ser. No. US 2005-42530, filed on 24 Jan 2005, PENDING Continuation of Ser. No. US 2001-842484, filed on 25 Apr 2001, ABANDONED

PRAI US 2004-620162P 20041019 (60)
US 1998-107929P 19981111 (60)
US 2003-458939P 20030331 (60)
US 2001-289554P 20010508 (60)
US 2001-296386P 20010606 (60)
US 2001-303691P 20010706 (60)
US 2001-313258P 20010817 (60)
US 2000-199538P 20000425 (60)

DT Utility

FS APPLICATION

LREP DUNLAP, CODDING & ROGERS P.C., PO BOX 16370, OKLAHOMA CITY, OK, 73113, US

CLMN Number of Claims: 19

ECL Exemplary Claim: 1

DRWN 9 Drawing Page(s)

LN.CNT 3322

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methodology for polymer grafting by a polysaccharide synthase and, more particularly, polymer grafting using the glycosaminoglycan synthases from *Pasteurella multocida*. The methodology of the present invention includes providing an enzymatically active glycosaminoglycan synthase enzyme from *Pasteurella multocida*, providing a synthetic, artificial acceptor for the glycosaminoglycan synthase enzyme; combining the synthetic, artificial acceptor with the glycosaminoglycan synthase enzyme within a reaction medium, wherein the reaction medium contains at least one sugar precursor selected from the group consisting of UDP-GlcA, UDP-GlcNAc, UDP-GalNAc, and reacting the glycosaminoglycan synthase enzyme with the synthetic, artificial

acceptor to produce an oligosaccharide or polysaccharide polymer. The glycosaminoglycan synthase enzyme may be hyaluronan synthase, chondroitin synthase, or heparosan synthase from *P. multocida*, and the oligosaccharide or polysaccharide polymer may be hyaluronic acid (hyaluronan), chondroitin, heparosan, or combinations thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 30 OF 58 USPATFULL on STN
AN 2006:21514 USPATFULL
TI Biosynthetic polypeptides utilizing non-naturally encoded amino acids
IN Cho, Ho Sung, San Diego, CA, UNITED STATES
Daniel, Thomas O., La Jolla, CA, UNITED STATES
Hays, Anna-Maria, La Jolla, CA, UNITED STATES
Wilson, Troy E., San Marino, CA, UNITED STATES
Litzinger, David C., Poway, CA, UNITED STATES
Mariani, Roberto, San Diego, CA, UNITED STATES
Kimmel, Bruce E., San Diego, CA, UNITED STATES
Keefe, William M., San Diego, CA, UNITED STATES
PA Ambrx, Inc., San Diego, CA, UNITED STATES (U.S. corporation)
PI US 2006019347 A1 20060126
AI US 2005-187687 A1 20050721 (11)
PRAI US 2004-590035P 20040721 (60)
US 2005-659709P 20050307 (60)
DT Utility
FS APPLICATION
LREP ATTN: JOHN W. WALLEN, III, AMBRX, INC., 10410 SCIENCE CENTER DRIVE, SAN
DIEGO, CA, 92121, US
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN 13 Drawing Page(s)
LN.CNT 11604
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Modified biosynthetic polypeptide molecules, methods for
manufacturing, and uses thereof are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 31 OF 58 USPATFULL on STN
AN 2005:326440 USPATFULL
TI Composition for accelerating seed germination and plant growth
IN Smith, Donald, Sainte-Anne-de-Bellevue, CANADA
Bo, Pan, Sainte-Anne-de-Bellevue, CANADA
Deng, Yinghai, Montreal, CANADA
Migner, Pierre, Saint-Anne-de-Bellevue, CANADA
Zhang, Feng, Sainte-Anne-de-Bellevue, CANADA
Prithiviraj, Balakrishnan, Sainte-Anne-de-Bellevue, CANADA
Habib, Ahsan, Sainte-Anne-de-Bellevue, CANADA
PA Bios Agriculture Inc., Ontario, CANADA (non-U.S. corporation)
McGill University, Québec, CANADA (non-U.S. corporation)
PI US 6979664 B1 20051227
WO 2000004778 20000203
AI US 2001-744129 19990721 (9)
WO 1999-CA666 19990721
20010621 PCT 371 date
PRAI CA 1998-2243669 19980721
DT Utility
FS GRANTED
EXNAM Primary Examiner: Clardy, S. Mark
LREP Merchant & Gould P.C.
CLMN Number of Claims: 35

ECL Exemplary Claim: 1
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 1479

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Lipo Chitoooligosaccharide (LCO) [NodBj-V(C18:1,Mefuc)] isolated from Bradyrhizobium japonicum strain 532C was able to stimulate seed germination/seedling emergence, or in the case of potato, sprouting, of a number of crop plants representing eight distantly related plant families (Poaceae, Fabaceae, Brassicaceae, Cucurbitaceae, Malvaceae, Asteraceae, Chenopodiaceae and Solanaceae) of plants, at 25 and/or at 15.degree. C. It also promoted sprouting potato minitubers. Other LCOs [NodRM-V(C.sub.16:2,5) and LCO from R. leguminosarum] were also shown to also display growth-promoting effects on the tested crop plants. The compositions comprising at least one LCO are shown to be effective in promoting growth under both laboratory and field conditions. The invention thus also relates to methods for promoting seed germination and/or seedling emergence and/or growth of plants comprising subjecting the seeds and/or plants to an effective amount of an agricultural composition comprising at least one LCO.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 32 OF 58 USPATFULL on STN

AN 2005:286919 USPATFULL

TI In vivo incorporation of unnatural amino acids

IN Schultz, Peter, La Jolla, CA, UNITED STATES

Wang, Lei, San Diego, CA, UNITED STATES

Anderson, John Christopher, San Diego, CA, UNITED STATES

Chin, Jason William, Cambridge, UNITED KINGDOM

Liu, David R., Lexington, MA, UNITED STATES

Magliery, Thomas J., North Haven, CT, UNITED STATES

Meggers, Eric L., Philadelphia, PA, UNITED STATES

Mehl, Ryan A., Lancaster, PA, UNITED STATES

Pastrnak, Miro, San Diego, CA, UNITED STATES

Santoro, Stephen William, Cambridge, MA, UNITED STATES

Zhang, Zhiwen, San Diego, CA, UNITED STATES

PA The Scripps Research Institute, La Jolla, CA, UNITED STATES (U.S. corporation)

PI US 2005250183 A1 20051110

AI US 2004-17550 A1 20041217 (11)

RLI Continuation of Ser. No. US 2002-126927, filed on 19 Apr 2002, PENDING

PRAI US 2001-285030P 20010419 (60)

US 2002-355514P 20020206 (60)

DT Utility

FS APPLICATION

LREP QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501, US

CLMN Number of Claims: 33

ECL Exemplary Claim: 1-47

DRWN 37 Drawing Page(s)

LN.CNT 8768

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides methods and compositions for in vivo incorporation of unnatural amino acids. Also provided are compositions including proteins with unnatural amino acids.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 33 OF 58 USPATFULL on STN

AN 2005:254268 USPATFULL

TI Modified human interferon polypeptides and their uses

IN Cho, Ho Sung, San Diego, CA, UNITED STATES
Daniel, Thomas O., San Diego, CA, UNITED STATES
Hays, Anna-Maria, La Jolla, CA, UNITED STATES
Wilson, Troy E., San Marino, CA, UNITED STATES
PA Ambrx, Inc., San Diego, CA, UNITED STATES (U.S. corporation)
PI US 2005220762 A1 20051006
AI US 2005-46440 A1 20050128 (11)
PRAI US 2004-541528P 20040202 (60)
US 2004-581314P 20040618 (60)
US 2004-581175P 20040618 (60)
US 2004-580885P 20040618 (60)
US 2004-638616P 20041222 (60)
DT Utility
FS APPLICATION
LREP ATTN: JOHN W. WALLEN, III, AMBRX, INC., 10410 SCIENCE CENTER DRIVE, SAN
DIEGO, CA, 92121, US
CLMN Number of Claims: 95
ECL Exemplary Claim: 1
DRWN 22 Drawing Page(s)
LN.CNT 10198
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Modified human interferon polypeptides and uses thereof are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 34 OF 58 USPATFULL on STN
AN 2005:196262 USPATFULL
TI Modified human growth hormone polypeptides and their uses
IN Cho, Ho Sung, San Diego, CA, UNITED STATES
Daniel, Thomas O., La Jolla, CA, UNITED STATES
DiMarchi, Richard D., Carmel, IN, UNITED STATES
Hays, Anna-Maria, La Jolla, CA, UNITED STATES
Wilson, Troy E., San Marino, CA, UNITED STATES
Sim, Bee-Cheng, San Diego, CA, UNITED STATES
Litzinger, David C., Poway, CA, UNITED STATES
PA Ambrx, Inc., San Diego, CA, UNITED STATES (U.S. corporation)
PI US 2005170404 A1 20050804
AI US 2005-46432 A1 20050128 (11)
PRAI US 2004-541528P 20040202 (60)
US 2004-581314P 20040618 (60)
US 2004-581175P 20040618 (60)
US 2004-580885P 20040618 (60)
US 2004-638616P 20041222 (60)
DT Utility
FS APPLICATION
LREP ATTN: JOHN W. WALLEN, III, AMBRX, INC., 10410 SCIENCE CENTER DRIVE, SAN
DIEGO, CA, 92121, US
CLMN Number of Claims: 100
ECL Exemplary Claim: 1
DRWN 22 Drawing Page(s)
LN.CNT 9124
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Modified human growth hormone polypeptides and uses thereof are
provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 35 OF 58 USPATFULL on STN
AN 2005:144311 USPATFULL
TI Polymer grafting by polysaccharide synthases
IN DeAngelis, Paul L., Edmond, OK, UNITED STATES

PI US 2005124046 A1 20050609
 US 7060469 B2 20060613
 AI US 2002-197153 A1 20020716 (10)
 RLI Continuation-in-part of Ser. No. US 1999-437277, filed on 10 Nov 1999,
 GRANTED, Pat. No. US 6444447
 DT Utility
 FS APPLICATION
 LREP DUNLAP, CODDING & ROGERS P.C., PO BOX 16370, OKLAHOMA CITY, OK, 73113,
 US
 CLMN Number of Claims: 37
 ECL Exemplary Claim: 1
 DRWN 11 Drawing Page(s)
 LN.CNT 2615
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB The present invention relates to methodology for polymer grafting by a
 polysaccharide synthase and, more particularly, polymer grafting using
 the hyaluronate synthase from Pasteurella multocida.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 36 OF 58 USPATFULL on STN
 AN 2005:4967 USPATFULL
 TI Pharmaceutical composition comprising chito-oligomers
 IN Gislason, Johannes, Reykjavik, ICELAND
 Elnarsson, Jon M., Reykjavik, ICELAND
 Peter, Martin, Golm, GERMANY, FEDERAL REPUBLIC OF
 Bahrke, Sven, Golm, GERMANY, FEDERAL REPUBLIC OF
 PI US 2005004073 A1 20050106
 AI US 2004-490637 A1 20040325 (10)
 WO 2002-1S16 20020926
 PRAI IS 2001-6085 20010926
 DT Utility
 FS APPLICATION
 LREP BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS CHURCH, VA, 22040-0747
 CLMN Number of Claims: 19
 ECL Exemplary Claim: 1
 DRWN 2 Drawing Page(s)
 LN.CNT 749
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB Compositions are provided comprising chito-oligomers obtainable from
 chitin, comprising oligomers of N-acetyl glucosamine (NAG) and
 glucosamine, wherein at least 50% of the oligomers have a chain length
 of about 2-50, and the degree of deacetylation of the
 oligomers is in the range of about 0-70%, preferably about 30-50%. The
 compositions are highly useful as pharmaceutical compositions for
 treatment of joint disorders such as rheumatoid arthritis and
 osteoarthritis. Also provided are methods for treatment of
 joint disorders and treatment against inflammatory activity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 37 OF 58 USPATFULL on STN
 AN 2004:300227 USPATFULL
 TI Branched cyclic tetrasaccharide, process for producing the
 same, and use
 IN Aga, Hajime, Okayama, JAPAN
 Higashiyama, Takanobu, Okayama, JAPAN
 Watanabe, Hiraku, Okayama, JAPAN
 Sonoda, Tomohiko, Okayama, JAPAN
 Kubota, Michio, Okayama, JAPAN
 PI US 2004236097 A1 20041125

	US 7223570	B2	20070529
AI	US 2003-471377	A1	20030909 (10)
	WO 2002-JP2213		20020308
PRAI	JP 2001-67282		20010309
DT	Utility		
FS	APPLICATION		
LREP	BROWDY AND NEIMARK, P.L.L.C., 624 NINTH STREET, NW, SUITE 300, WASHINGTON, DC, 20001-5303		
CLMN	Number of Claims: 29		
ECL	Exemplary Claim: 1		
DRWN	20 Drawing Page(s)		
LN.CNT	3367		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The object of the present invention is to provide a novel glycosyl derivative of cyclotetrasaccharide represented by cyclo{+6)- α -D-glucopyranosyl-(1 \rightarrow 3)- α -D-glucopyranosyl-(1 \rightarrow 6)- α -D-glucopyranosyl-(1 \rightarrow 3)- α -D-glucopyranosyl-(1 \rightarrow), and it is solved by providing a branched cyclotetrasaccharide, wherein one or more hydrogen atoms in the hydroxyl groups of cyclotetrasaccharide are replaced with an optionally substituted glycosyl group, with the proviso that, when only one hydrogen atom in the C-6 hydroxyl group among the above hydrogen atoms is substituted with an optionally-substituted glycosyl group, the substituted glycosyl group is one selected from those excluding D-glucosyl group.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22	ANSWER 38 OF 58 USPATFULL on STN		
AN	2004:171982 USPATFULL		
TI	Targeted glycosaminoglycan polymers by polymer grafting and methods of making and using same		
IN	DeAngelis, Paul L., Edmond, OK, UNITED STATES		
	Jing, Wei, Edmond, OK, UNITED STATES		
PI	US 2004132143	A1	20040708
	US 7223571	B2	20070529
AI	US 2003-642248	A1	20030815 (10)
RLI	Continuation-in-part of Ser. No. US 2002-195908, filed on 15 Jul 2002, PENDING Continuation-in-part of Ser. No. US 1999-437277, filed on 10 Nov 1999, GRANTED, Pat. No. US 6444447 Continuation-in-part of Ser. No. US 1999-283402, filed on 1 Apr 1999, ABANDONED Continuation-in-part of Ser. No. US 2001-842484, filed on 25 Apr 2001, PENDING Continuation-in-part of Ser. No. US 2002-142143, filed on 8 May 2002, PENDING		
PRAI	US 2002-404356P		20020816 (60)
	US 2003-479432P		20030618 (60)
	US 1998-107929P		19981111 (60)
	US 1998-80414P		19980402 (60)
	US 2000-199538P		20000425 (60)
	US 2001-289554P		20010508 (60)
DT	Utility		
FS	APPLICATION		
LREP	DUNLAP, CODDING & ROGERS P.C., PO BOX 16370, OKLAHOMA CITY, OK, 73113		
CLMN	Number of Claims: 111		
ECL	Exemplary Claim: 1		
DRWN	41 Drawing Page(s)		
LN.CNT	8221		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methodology for polymer grafting by a polysaccharide synthase and, more particularly, polymer grafting using the hyaluronate or chondroitin or heparin/heparosan synthases from Pasteurella, in order to create a variety of glycosaminoglycan

oligosaccharides having a natural or chimeric or hybrid sugar structure with a targeted size that are substantially monodisperse in size.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 39 OF 58 USPATFULL on STN
AN 2004:65289 USPATFULL
TI Chitinase encoding DNA molecules from cotton expressed preferentially in secondary walled cells during secondary wall deposition and a corresponding promoter
IN Haigler, Candace H., Lubbock, TX, UNITED STATES
Zhang, Hong, Lubbock, TX, UNITED STATES
Wu, Chunfa, Lubbock, TX, UNITED STATES
Wan, Chun-Hua, Gaithersburg, MA, UNITED STATES
Zhang, Deshui, Lubbock, TX, UNITED STATES
PI US 2004049808 A1 20040311
US 7098324 B2 20060829
AI US 2003-350696 A1 20030123 (10)
RLI Continuation-in-part of Ser. No. US 2001-918083, filed on 30 Jul 2001, ABANDONED
DT Utility
FS APPLICATION
LREP Michael L. Goldman, NIXON PEAODY LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603
CLMN Number of Claims: 94
ECL Exemplary Claim: 1
DRWN 12 Drawing Page(s)
LN.CNT 4718

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to isolated nucleic acid molecules encoding endogenous cotton chitinases and corresponding promoters, which are preferentially expressed in secondary walled cells during secondary wall deposition. The polypeptide encoded by the nucleic acid molecule, a DNA construct linking the isolated nucleic acid molecule with a promoter, the DNA construct incorporated in an expression system, a host cell, a plant, or a plant seed are also disclosed. The present invention also relates to a DNA construct linking the isolated promoters with a second DNA as well as expression systems, host cells, plants, or plant seeds containing the DNA construct. Methods of imparting resistance to insects and fungi, regulating the fiber cellulose content, and methods of expressing a gene preferentially in secondary walled cells during secondary wall deposition are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 40 OF 58 USPATFULL on STN
AN 2003:228246 USPATFULL
TI Methods of determining SAM-dependent methyltransferase activity using a mutant SAM hydrolase
IN Yuan, Chong-Sheng, San Diego, CA, United States
PA General Atomics, San Diego, CA, United States (U.S. corporation)
PI US 6610504 B1 20030826
AI US 2000-546013 20000410 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Prouty, Rebecca E.; Assistant Examiner: Steadman, David J.
LREP Morrison & Foerster LLP
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)

LN.CNT 6392

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to compositions and methods for assaying the activity of methyltransferases, such as S-adenosylmethionine (SAM)-dependent methyltransferases. The methods can be used for screening for modulators of such methyltransferases, for identifying substrates and for diagnostics. The methods are amenable for use in high throughput formats. Kits for performing the methods are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 41 OF 58 USPATFULL on STN

AN 2003:159875 USPATFULL

TI Composite stimulating iNOS enzyme which induce immuno-reactant nitric oxide synthesis and process for preparing the same

IN You, Hyung Ja, Kyungki-do, KOREA, REPUBLIC OF
Seo, Sang Bong, Kyungki-do, KOREA, REPUBLIC OF
Seo, Chan Seok, Kyungki-do, KOREA, REPUBLIC OF

PI US 2003109490 A1 20030612

AI US 2002-192804 A1 20020709 (10)

PRAI KR 2001-40955 20010709

DT Utility

FS APPLICATION

LREP PENNIE AND EDMONDS, 1155 AVENUE OF THE AMERICAS, NEW YORK, NY, 100362711

CLMN Number of Claims: 7

ECL Exemplary Claim: 1

DRWN 4 Drawing Page(s)

LN.CNT 813

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a composite stimulating iNOS enzyme which induce immuno-reactant Nitric Oxide (NO) synthesis and a process for preparing the same. More particularly, it relates to a composite stimulating iNOS enzyme which is inducible immuno-reactant NO synthase prepared by nano-coating and binding water soluble β -glucosamin with immuno-protein where the water soluble β -glucosamin is produced by ultrasonic degradation of chitin/chitosan in NaCl solution, degradation employing lysozyme, washing with ethanol, and ion-exchange, thus containing distinctive functional element from the conventional chitosan.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 42 OF 58 USPATFULL on STN

AN 2003:120094 USPATFULL

TI In vivo incorporation of unnatural amino acids

IN Schultz, Peter, La Jolla, CA, UNITED STATES
Wang, Lei, San Diego, CA, UNITED STATES
Anderson, John Christopher, San Diego, CA, UNITED STATES
Chin, Jason William, San Diego, CA, UNITED STATES
Liu, David R., Lexington, MA, UNITED STATES
Magliery, Thomas J., North Haven, CT, UNITED STATES
Meggers, Eric L., Philadelphia, PA, UNITED STATES
Mehl, Ryan A., San Diego, CA, UNITED STATES
Pastrnak, Miro, San Diego, CA, UNITED STATES
Santoro, Stephen William, San Diego, CA, UNITED STATES
Zhang, Zhiwen, San Diego, CA, UNITED STATES

PA The Scripps Research Institute, La Jolla, CA, UNITED STATES, 92073 (U.S. corporation)

PI US 2003082575 A1 20030501

US 7045337 B2 20060516

AI US 2002-126927 A1 20020419 (10)
PRAI US 2001-285030P 20010419 (60)
US 2002-355514P 20020206 (60)
DT Utility
FS APPLICATION
LREP QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA,
94501
CLMN Number of Claims: 140
ECL Exemplary Claim: 1
DRWN 37 Drawing Page(s)
LN.CNT 6984

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides methods and compositions for in vivo
incorporation of unnatural amino acids. Also provided are compositions
including proteins with unnatural amino acids.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 43 OF 58 USPATFULL on STN
AN 2003:113030 USPATFULL
TI Polymer grafting by polysaccharide synthases
IN DeAngelis, Paul L., Edmond, OK, UNITED STATES
PI US 2003077763 A1 20030424
AI US 2002-184485 A1 20020627 (10)
RLI Continuation of Ser. No. US 1999-437277, filed on 10 Nov 1999, GRANTED,
Pat. No. US 6444447 Continuation of Ser. No. US 1999-283402, filed on 1
Apr 1999, ABANDONED
PRAI US 1998-107929P 19981111 (60)
DT Utility
FS APPLICATION
LREP DUNLAP, CODDING & ROGERS P.C., PO BOX 16370, OKLAHOMA CITY, OK, 73114
CLMN Number of Claims: 42
ECL Exemplary Claim: 1
DRWN 11 Drawing Page(s)
LN.CNT 2040

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methodology for polymer grafting by a
polysaccharide synthase and, more particularly, polymer grafting using
the hyaluronate synthase from Pasteurella multocida. The present
invention also relates to coatings for biomaterials wherein the coatings
provide protective properties to the biomaterial and/or act as a
bioadhesive. Such coatings could be applied to electrical devices,
sensors, catheters and any device which may be contemplated for use
within a mammal. The present invention further relates to drug delivery
matrices which are biocompatible and may comprise combinations of a
biomaterial or a bioadhesive and a medicament or a medicament-containing
liposome. The biomaterial and/or bioadhesive is a hyaluronic acid
polymer produced by a hyaluronate synthase from Pasteurella multocida.
The present invention also relates to the creation of chimeric molecules
containing hyaluronic acid or hyaluronic acid--like chains attached to
various compounds and especially carbohydrates or hydroxyl containing
substances. The present invention also relates to a chondroitin synthase
from Pasteurella multocida which is capable of producing polysaccharide
polymers on an acceptor or primer molecule.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 44 OF 58 USPATFULL on STN
AN 2002:224440 USPATFULL
TI Polymer grafting by polysaccharide synthases
IN DeAngelis, Paul L., Edmond, OK, United States

PA The Board of Regents of the University of Oklahoma, Norman, OK, United States (U.S. corporation)
PI US 6444447 B1 20020903
AI US 1999-437277 19991110 (9)
RLI Continuation-in-part of Ser. No. US 1999-283402, filed on 1 Apr 1999
PRAI US 1998-107929P 19981111 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Nashed, Nashaat T.
LREP Dunlap, Coddling & Rogers, P.C.
CLMN Number of Claims: 48
ECL Exemplary Claim: 1
DRWN 11 Drawing Figure(s); 11 Drawing Page(s)
LN.CNT 2329

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methodology for polymer grafting by a polysaccharide synthase and, more particularly, polymer grafting using the hyaluronate synthase from *Pasteurella multocida*. The present invention also relates to coatings for biomaterials wherein the coatings provide protective properties to the biomaterial and/or act as a bioadhesive. Such coatings could be applied to electrical devices, sensors, catheters and any device which may be contemplated for use within a mammal. The present invention further relates to drug delivery matrices which are biocompatible and may comprise combinations of a biomaterial or a bioadhesive and a medicament or a medicament-containing liposome. The biomaterial and/or bioadhesive is a hyaluronic acid polymer produced by a hyaluronate synthase from *Pasteurella multocida*. The present invention also relates to the creation of chimeric molecules containing hyaluronic acid or hyaluronic acid-like chains attached to various compounds and especially carbohydrates or hydroxyl containing substances. The present invention also relates to a chondroitin synthase from *Pasteurella multocida* which is capable of producing polysaccharide polymers on an acceptor or primer molecule.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 45 OF 58 USPATFULL on STN
AN 2002:3856 USPATFULL
TI Low cost manufacture of oligosaccharides
IN Defrees, Shawn, North Wales, PA, UNITED STATES
Johnson, Karl, Willow Grove, PA, UNITED STATES
PI US 2002001831 A1 20020103
AI US 2001-757289 A1 20010108 (9)
RLI Continuation of Ser. No. US 1999-442111, filed on 17 Nov 1999, PENDING
PRAI US 1998-109031P 19981118 (60)
US 1998-109096P 19981119 (60)
DT Utility
FS APPLICATION
LREP TOWNSEND AND TOWNSEND AND CREW, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834
CLMN Number of Claims: 71
ECL Exemplary Claim: 1
DRWN 11 Drawing Page(s)
LN.CNT 2764

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides recombinant cells, reaction mixtures, and methods that are useful for the enzymatic synthesis of product saccharides. The recombinant cells contain a heterologous gene that encodes a glycosyltransferase which catalyzes at least one step of the enzymatic synthesis, as well as a system for generating a nucleotide sugar that can serve as a substrate for the glycosyltransferase.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 46 OF 58 USPATFULL ON STN
AN 97:112354 USPATFULL
TI Thermostable, salt tolerant, wide pH range novel chitinase
IN Laine, Roger A., Baton Rouge, LA, United States
Ou, Chin-Yih, Dunwoody, GA, United States
PA Board of Supervisors of Louisiana State University and Agricultural and
Mechanical College, Baton Rouge, LA, United States (U.S. corporation)
PI US 5693519 19971202
AI US 1995-455837 19950531 (8)
RLI Division of Ser. No. US 1993-171208, filed on 21 Dec 1993, now patented,
Pat. No. US 5602020 which is a continuation of Ser. No. US 1992-844301,
filed on 27 Feb 1992, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Prouty, Rebecca E.
LREP Runnels, John H.
CLMN Number of Claims: 18
ECL Exemplary Claim: 11
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 470

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cloned chitinase from a *Vibrio parahaemolyticus* gene cloned into the
plasmid pUC18 in *E. coli* strain DH5 α . The plasmid construct,
called pC120, had a 6.4 kb DNA insert. The recombinant gene expressed
chitinase activity similar to that found in native *V. parahaemolyticus*.
In addition to chitin, at least six additional substrates were
observed to be hydrolyzed by the recombinant chitinase, including
 β -N-acetyl galactosamine glycosides, showing that the enzyme is an
N-acetyl-hexosaminidase. The enzyme showed resistance to denaturation by
2M NaCl, was thermostable at 45.degree. C., and possessed an
unusual range of activity from pH 5 to 9. The enzyme is useful in the
degradation of crustacean shells. It catalyzes the production of
N-acetyl-glucosamine, a compound which should be valuable as a chiral
precursor or intermediate in the synthesis or manufacture of
pharmaceutical compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 47 OF 58 USPATFULL ON STN
AN 97:12360 USPATFULL
TI Thermostable, salt tolerant, wide PH range novel chitinase
IN Laine, Roger A., Baton Rouge, LA, United States
Ou, Chin-Yih, Dunwoody, GA, United States
PA Board of Supervisors of Louisiana State University and Agricultural and
Mechanical College, Baton Rouge, LA, United States (U.S. corporation)
PI US 5602020 19970211
AI US 1993-171208 19931221 (8)
RLI Continuation of Ser. No. US 1992-844301, filed on 27 Feb 1992, now
abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Wax, Robert A.; Assistant Examiner: Pouty, Rebecca
LREP Runnels, John H.
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 426

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cloned chitinase from a *Vibrio parahaemolyticus* gene cloned into the plasmid pUC18 in *E. coli* strain DH5 α . The plasmid construct, called pC120, had a 604 kb DNA insert. The recombinant gene expressed chitinase activity similar to that found in native *V. parahaemolyticus*. In addition to chitinase, at least six additional substrates were observed to be hydrolyzed by the recombinant chitinase, including β -N-acetyl galactosamine glycosides, showing that the enzyme is an N-acetyl-hexosaminidase. The enzyme showed resistance to denaturation by 2M NaCl, was thermostable at 45.degree. C., and possessed an unusual range of activity from pH 5 to 9. The enzyme is useful in the degradation of crustacean shells. It catalyzes the production of N-acetyl-glucosamine, a compound which should be valuable as a chiral precursor or intermediate in the synthesis or manufacture of pharmaceutical compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 48 OF 58 USPATFULL on STN
AN 93:102834 USPATFULL
TI Functionalized poly(hydroxyalkanoates) and methods of manufacturing same
IN Yalpani, Manssur, 560 Leparc, Buffalo Grove, IL, United States 60089
PI US 5268422 19931207
AI US 1992-973730 19921109 (7)
RLI Division of Ser. No. US 1990-554338, filed on 19 Jul 1990, now patented, Pat. No. US 5191016
DT Utility
FS Granted
EXNAM Primary Examiner: Nutter, Nathan M.
LREP Marshall, O'Toole, Gerstein, Murray & Borun
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 880
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Functionalized poly(hydroxyalkanoate) derivatives having the general structural formula: ##STR1## wherein Y is hydrogen, a saccharide moiety or an alkenyl moiety having a molecular weight in the range of from about 25 to about 100,000; R.sub.1, R.sub.2 and R.sub.3 are, independently, hydrogen, an aromatic moiety, an alkyl moiety or an alkenyl moiety, said alkyl moiety or alkenyl moiety including from one to about nine carbon atoms; A is carbonyl or methylene; X is oxygen or imino (=NH); Z is selected from the group consisting of hydrogen, a saccharide moiety, an alkyl moiety and an alkenyl moiety having a molecular weight in the range of from about 25 to about 100,000, with the proviso that if Y is hydrogen, Z is not hydrogen; r.sub.1, r.sub.2 and r.sub.3 are, independently, a numeral 1, 2 or 3; m and n are, independently, a numeral in the range of from one to about 5; and q is a numeral in the range of from about 5 to about 10,000, and a novel method of manufacturing the functionalized poly(hydroxyalkanoate) derivatives, are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 49 OF 58 USPATFULL on STN
AN 93:16734 USPATFULL
TI Functionalized poly(hydroxyalkanoates) and method of manufacturing same
IN Yalpani, Manssur, 560 Leparc, Buffalo Grove, IL, United States 60089
PI US 5191016 19930302
AI US 1990-554338 19900719 (7)

DT Utility
FS Granted
EXNAM Primary Examiner: Nutter, Nathan M.
LREP Marshall, O'Toole, Gerstein, Murray & Bicknell
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 700

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Functionalized poly(hydroxyalkanoate) derivatives having the general structural formula: ##STR1## wherein Y is hydrogen, a saccharide moiety or an alkenyl moiety having a molecular weight in the range of from about 25 to about 100,000; R.sub.1, R.sub.2 and R.sub.3 are, independently, hydrogen, an aromatic moiety, an alkyl moiety or an alkenyl moiety, said alkyl moiety or alkenyl moiety including from one to about nine carbon atoms; A is carbonyl or methylene; X is oxygen or imino (--NH); Z is selected from the group consisting of hydrogen, a saccharide moiety, an alkyl moiety and an alkenyl moiety having a molecular weight in the range of from about 25 to about 100,000, with the proviso that if Y is hydrogen, Z is not hydrogen; r.sub.1, r.sub.2 and r.sub.3 are, independently, a numeral 1, 2 or 3; m and n are, independently, a numeral in the range of from one to about 5; and q is a numeral in the range of from about 5 to about 10,000, and a novel method of manufacturing the functionalized poly(hydroxyalkanoate) derivatives, are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 50 OF 58 USPAT2 on STN

AN 2006:227892 USPAT2

TI Compositions containing, methods involving, and uses of non-natural amino acids and polypeptides

IN Miao, Zhenwei, San Diego, CA, UNITED STATES

Liu, Junjie, San Diego, CA, UNITED STATES

Norman, Thea, San Diego, CA, UNITED STATES

Driver, Russell, Solana Beach, CA, UNITED STATES

PA Ambrx, Inc., La Jolla, CA, UNITED STATES (U.S. corporation)

PI US 7332571 B2 20080219

AI US 2005-313306 20051221 (11)

PRAI US 2005-696210P 20050701 (60)

US 2005-696302P 20050701 (60)

US 2005-696068P 20050701 (60)

US 2004-638418P 20041222 (60)

US 2004-638527P 20041222 (60)

US 2004-639195P 20041222 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Gupta, Anish; Assistant Examiner: Ha, Julie

LREP Wilson, Sonsini Goodrich & Rosati

CLMN Number of Claims: 6

ECL Exemplary Claim: 1

DRWN 65 Drawing Figure(s); 65 Drawing Page(s)

LN.CNT 13946

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed herein are non-natural amino acids and polypeptides that include at least one non-natural amino acid, and methods for making such non-natural amino acids and polypeptides. The non-natural amino acids, by themselves or as a part of a polypeptide, can include a wide range of possible functionalities, but typical have at least one oxime, carbonyl, dicarbonyl, and/or hydroxylamine group. Also disclosed herein are non-natural amino acid polypeptides that are further modified

post-translationally, methods for effecting such modifications, and methods for purifying such polypeptides. Typically, the modified non-natural amino acid polypeptides include at least one oxime, carbonyl, dicarbonyl, and/or hydroxylamine group. Further disclosed are methods for using such non-natural amino acid polypeptides and modified non-natural amino acid polypeptides, including therapeutic, diagnostic, and other biotechnology uses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 51 OF 58 USPAT2 on STN
AN 2005:144311 USPAT2
TI Polymer grafting by polysaccharide synthases
IN DeAngelis, Paul L., Edmond, OK, UNITED STATES
PA The Board of Regents of the University of Oklahoma, Norman, OK, UNITED STATES (U.S. corporation)
PI US 7060469 B2 20060613
AI US 2002-197153 20020716 (10)
RLI Continuation-in-part of Ser. No. US 1999-437277, filed on 10 Nov 1999, Pat. No. US 6444447
PRAI US 1998-80414P 19980402 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Nashed, Nashaat T.
LREP Dunlap, Coddling & Rogers, P.C.
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 11 Drawing Figure(s); 11 Drawing Page(s)
LN.CNT 2469

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methodology for polymer grafting by a polysaccharide synthase and, more particularly, polymer grafting using the hyaluronate synthase from *Pasteurella multocida*.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 52 OF 58 USPAT2 on STN
AN 2004:300227 USPAT2
TI Branched cyclic tetrasaccharide, process for producing the same, and use
IN Aga, Hajime, Okayama, JAPAN
Higashiyama, Takanobu, Okayama, JAPAN
Watanabe, Hikaru, Okayama, JAPAN
Sonoda, Tomohiko, Okayama, JAPAN
Kubota, Michio, Okayama, JAPAN
PA Kabushiki Kaisha Hayashibara Seibutsu Kagaku Kenkyujo, Okayama, JAPAN (non-U.S. corporation)
PI US 7223570 B2 20070529
WO 2002072594 20020919
AI US 2002-471377 20020308 (10)
WO 2002-JP2213 20020308
20030909 PCT 371 date
PRAI JP 2001-67282 20010309
DT Utility
FS GRANTED
EXNAM Primary Examiner: Maier, Leigh C.
LREP Browdy and Neimark, PLLC
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 25 Drawing Figure(s); 20 Drawing Page(s)
LN.CNT 3352

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The object of the present invention is to provide a novel glycosyl derivative of cyclotetrasaccharide represented by cyclo{ α 6)- α -D-glucopyranosyl-(1 \rightarrow 3)- α -D-glucopyranosyl-(1 \rightarrow 6)- α -D-glucopyranosyl-(1 \rightarrow 3)- α -D-glucopyranosyl-(1 \rightarrow), and it is solved by providing a branched cyclotetrasaccharide, wherein one or more hydrogen atoms in the hydroxyl groups of cyclotetrasaccharide are replaced with an optionally substituted glycosyl group, with the proviso that, when only one hydrogen atom in the C-6 hydroxyl group among the above hydrogen atoms is substituted with an optionally-substituted glycosyl group, the substituted glycosyl group is one selected from those excluding D-glucosyl group.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 53 OF 58 USPAT2 on STN

AN 2004:171982 USPAT2

TI Targeted glycosaminoglycan polymers by polymer grafting and methods of making and using same

IN DeAngelis, Paul L., Edmond, OK, UNITED STATES

Jing, Wei, Edmond, OK, UNITED STATES

PA The Board of Regents of the University of Oklahoma, Norman, OK, UNITED STATES (U.S. corporation)

PI US 7223571 B2 20070529

AI US 2003-642248 20030815 (10)

RLI Continuation-in-part of Ser. No. US 2002-195908, filed on 15 Jul 2002, PENDING Continuation-in-part of Ser. No. US 1999-437277, filed on 10 Nov 1999, Pat. No. US 6444447, issued on 3 Sep 2002 Continuation-in-part of Ser. No. US 1999-283402, filed on 1 Apr 1999, ABANDONED Continuation-in-part of Ser. No. US 2001-842484, filed on 25 Apr 2001, ABANDONED Continuation-in-part of Ser. No. US 2002-142143, filed on 8 May 2002, PENDING

PRAI US 2003-491362P 20030731 (60)

US 2003-479432P 20030618 (60)

US 2002-404356P 20020816 (60)

US 2000-199538P 20000425 (60)

US 2001-289554P 20010508 (60)

US 1998-107929P 19981111 (60)

US 1998-80414P 19980402 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Nashed, Nashaat T.

LREP Dunlap, Coddling & Rogers, P.C.

CLMN Number of Claims: 52

ECL Exemplary Claim: 1

DRWN 40 Drawing Figure(s); 40 Drawing Page(s)

LN.CNT 8444

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methodology for polymer grafting by a polysaccharide synthase and, more particularly, polymer grafting using the hyaluronate or chondroitin or heparin/heparosan synthases from Pasteurella, in order to create a variety of glycosaminoglycan oligosaccharides having a natural or chimeric or hybrid sugar structure with a targeted size that are substantially monodisperse in size.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 54 OF 58 USPAT2 on STN

AN 2004:65289 USPAT2

TI Chitinase encoding DNA molecules from cotton expressed preferentially in

secondary walled cells during secondary wall deposition and a corresponding promoter

IN Haigler, Candace H., Lubbock, TX, UNITED STATES
 Zhang, Hong, Lubbock, TX, UNITED STATES
 Wu, Chunfa, Lubbock, TX, UNITED STATES
 Wan, Chun-Hua, Gaithersburg, MD, UNITED STATES
 Zhang, Deshui, Lubbock, TX, UNITED STATES

PA Texas Tech University, Lubbock, TX, UNITED STATES (U.S. corporation)

PI US 7098324 B2 20060829

AI US 2003-350696 20030123 (10)

RLI Continuation-in-part of Ser. No. US 2001-918083, filed on 30 Jul 2001, ABANDONED

DT Utility

FS GRANTED

EXNAM Primary Examiner: Fox, David T.; Assistant Examiner: Baum, Stuart F.

LREP Nixon Peabody LLP

CLMN Number of Claims: 2

ECL Exemplary Claim: 2

DRWN 12 Drawing Figure(s); 12 Drawing Page(s)

LN.CNT 4536

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to isolated nucleic acid molecules encoding endogenous cotton chitinases and corresponding promoters, which are preferentially expressed in secondary walled cells during secondary wall deposition. The polypeptide encoded by the nucleic acid molecule, a DNA construct linking the isolated nucleic acid molecule with a promoter, the DNA construct incorporated in an expression system, a host cell, a plant, or a plant seed are also disclosed. The present invention also relates to a DNA construct linking the isolated promoters with a second DNA as well as expression systems, host cells, plants, or plant seeds containing the DNA construct. Methods of imparting resistance to insects and fungi, regulating the fiber cellulose content, and methods of expressing a gene preferentially in secondary walled cells during secondary wall deposition are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 55 OF 58 USPAT2 on STN

AN 2003:120094 USPAT2

TI In vivo incorporation of unnatural amino acids

IN Schultz, Peter, La Jolla, CA, UNITED STATES
 Wang, Lei, San Diego, CA, UNITED STATES
 Anderson, John Christopher, San Diego, CA, UNITED STATES
 Chin, Jason William, San Diego, CA, UNITED STATES
 Liu, David R., Lexington, MA, UNITED STATES
 Magliery, Thomas J., North Haven, CT, UNITED STATES
 Meggers, Eric L., Philadelphia, PA, UNITED STATES
 Mehl, Ryan A., San Diego, CA, UNITED STATES
 Pastrnak, Miro, San Diego, CA, UNITED STATES
 Santoro, Steven William, San Diego, CA, UNITED STATES
 Zhang, Zhiwen, San Diego, CA, UNITED STATES

PA The Scripps Research Institute, La Jolla, CA, UNITED STATES (U.S. corporation)
 The Regents of the University of California, Oakland, CA, UNITED STATES (U.S. corporation)

PI US 7045337 B2 20060516

AI US 2002-126927 20020419 (10)

PRAI US 2002-355514P 20020206 (60)

US 2001-285030P 20010419 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Prouty, Rebecca E.; Assistant Examiner: Gebreyesus, Kagnew
LREP Quine Intellectual Property Law Group, P.C.
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 40 Drawing Figure(s); 37 Drawing Page(s)
LN.CNT 8863
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides methods and compositions for in vivo incorporation of unnatural amino acids. Also provided are compositions including proteins with unnatural amino acids.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L22 ANSWER 56 OF 58 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on
STN
AN 2003:433502 BIOSIS
DN PREV200300433502
TI Angiotensin I converting enzyme (ACE) inhibitory activity of hetero-chitooligosaccharides prepared from partially different deacetylated chitosans.
AU Park, Pyo-Jam; Je, Jae-Young; Kim, Se-Kwon [Reprint Author]
CS Department of Chemistry, Pukyong National University, Busan, 608-737, South Korea
sknkim@mail.pknu.ac.kr
SO Journal of Agricultural and Food Chemistry, (August 13 2003) Vol. 51, No. 17, pp. 4930-4934. print.
CODEN: JAFCAU. ISSN: 0021-8561.
DT Article
LA English
ED Entered STN: 17 Sep 2003
Last Updated on STN: 17 Sep 2003
AB Angiotensin I converting enzyme (ACE) inhibitory activity of hetero-chitooligosaccharides (hetero-COSs) prepared from partially different deacetylated chitosans was investigated. Partially deacetylated chitosans, 90, 75, and 50% deacetylated chitosan, were prepared from crab chitin by N-deacetylation with 40% sodium hydroxide solution for durations. In addition, nine kinds of hetero-COSs with relatively high molecular masses (5000-10 000 Da; 90-HMWCOSs, 75-HMWCOSs, and 50-HMWCOSs), medium molecular masses (1000-5000 Da; 90-MMWCOSs, 75-MMWCOSs, and 50-MMWCOSs), and low molecular masses (below 1000 Da; 90-LMWCOSs, 75-LMWCOSs, and 50-LMWCOSs) were prepared using an ultrafiltration membrane bioreactor system. ACE inhibitory activity of hetero-COSs was dependent on the degree of deacetylation of chitosans. 50-MMWCOSs that are COSs hydrolyzed from 50% deacetylated chitosan, the relatively lowest degree of deacetylation, exhibited the highest ACE inhibitory activity, and the IC50 value was 1.22±0.13 mg/mL. In addition, the ACE inhibition pattern of the 50-MMWCOSs was investigated by Lineweaver-Burk plots, and the inhibition pattern was found to be competitive.

L22 ANSWER 57 OF 58 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on
STN
AN 2002:134269 BIOSIS
DN PREV200200134269
TI In vitro antimicrobial activity of a chitooligosaccharide mixture against Actinobacillus actinomycetemcomitans and Streptococcus mutans.
AU Choi, Bong-Kyu; Kim, Kwang-Yoon; Yoo, Yun-Jung; Oh, Suk-Jung; Choi, Jong-Hoon [Reprint author]; Kim, Chong-Youl
CS Department of Oral Medicine, College of Dentistry, Yonsei University,

Seoul, South Korea
 ohisto@yumc.yonsei.ac.kr
 SO International Journal of Antimicrobial Agents, (December, 2001) Vol. 18,
 No. 6, pp. 553-557. print.
 ISSN: 0924-8579.

DT Article
 LA English
 ED Entered STN: 6 Feb 2002
 Last Updated on STN: 26 Feb 2002

AB The purpose of this study was to evaluate the in vitro antibacterial
 activity of a chitooligosaccharide mixture (MW 2000-30 000
 Da) with a deacetylation degree of 91.5% against two
 representative oral pathogens, *Actinobacillus actinomycetemcomitans* and
Streptococcus mutans. A 0.1% concentration of the
 chitooligosaccharides (derived from the exoskeletons of marine
 crustaceans) was used to estimate antibacterial activity. Approximately 2
 log colony forming units (CFU)/ml of *A. actinomycetemcomitans* were
 inactivated by 0.1% chitosan after 30 min, while 120 min exposure
 inactivated about 4.5 log CFU/ml of this organism. In contrast, the level
 of inactivation against *S. mutans* was less than 0.5 log CFU/ml after an
 exposure of up to 120 min. Electron microscopy showed that the exposure
 of *A. actinomycetemcomitans* to the chitooligosaccharides
 resulted in the disruption of cell membranes and that it could be
 considered for the treatment of periodontal diseases associated with *A.*
actinomycetemcomitans.

L22 ANSWER 58 OF 58 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on
 STN

AN 1992:325391 BIOSIS
 DN PREV199294027232; BA94:27232
 TI PURIFICATION AND CHARACTERIZATION OF CHITINASE FROM GREEN ONION.
 AU KIM Y S [Reprint author]; LEE M Y; PARK Y M
 CS NATURAL PRODUCTS RES INST, SEOUL NATL UNIV, SEOUL 110-460, KOREA
 SO Korean Biochemical Journal, (1992) Vol. 25, No. 2, pp. 171-177.
 CODEN: KBCJAK. ISSN: 0368-4881.

DT Article
 FS BA
 LA ENGLISH
 ED Entered STN: 11 Jul 1992
 Last Updated on STN: 11 Jul 1992

AB Chitinase (EC 3.2.1.14) was purified from the mature tissue of green onion
 by ammonium sulfate precipitation followed by affinity chromatography on a
 regenerated chitin and a Sephacryl HR-100. The purified enzyme gave a
 single band on polyacrylamide slab gel electrophoresis and its molecular
 weight was determined to be 35,000 Da using SDS-PAGE and
 HPLC-GPC. The isoelectric points of the enzyme were 3.5 and 7.2. The
 purified enzyme was stable on incubation at 50.degree. C for up
 to 20 min. Most of metal ions did not affect the activity significantly
 except that Ag+ and Hg2+ ions inhibited the enzyme activity at 10 mM
 concentration. HPLC analysis of the initial products from the digestion
 of colloidal chitin and chitooligosaccharides indicated that
 chitinase was endolytic in action, yielding oligomers from the dimer to
 higher oligosaccharides.

=> s Li Pengcheng/AU
 'AU' IS NOT A VALID FIELD CODE
 'AU' IS NOT A VALID FIELD CODE
 L23 313 LI PENGCHENG/AU

=> s 123 and chitosan

L24 121 L23 AND CHITOSAN

=> s 124 and Oligo?

18 FILES SEARCHED...

L25 14 L24 AND OLIGO?

=> dis 125 1-14 bib abs

L25 ANSWER 1 OF 14 BABS COPYRIGHT 2008 BEILSTEIN MDL on STN

AN 6516228 BABS

TI Salt-assisted acid hydrolysis of chitosan to oligomers
under microwave irradiation

AU Xing, Rong; Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo; Li,

Cuiping; Li, Zhien; Li, Pengcheng

SO Carbohydr. Res. (2005), 340(13), 2150 - 2153

CODEN: CRBRAT

DT Journal

AN 6516228 BABS

AB The effect of inorganic salts such as sodium chloride on the hydrolysis of chitosan in a microwave field was investigated. While it is known that microwave heating is a convenient way to obtain a wide range of products of different molecular weights only by changing the reaction time and/or the radiation power, the addition of some inorganic salts was shown to effectively accelerate the degradation of chitosan under microwave irradiation. The molecular weight of the degraded chitosan obtained by microwave irradiation was considerably lower than that obtained by traditional heating. Moreover, the molecular weight of degraded chitosan obtained by microwave irradiation assisted under the conditions of added salt was considerably lower than that obtained by microwave irradiation without added salt. Furthermore, the effect of ionic strength of the added salts was not linked with the change of molecular weight. FTIR spectral analyses demonstrated that a significantly shorter time was required to obtain a satisfactory molecular weight by the microwave irradiation-assisted inorganic salt method than by microwave irradiation without inorganic salts and conventional technology.

L25 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2008:267575 CAPLUS

TI Preparation and application of chitosan/chito-
oligosaccharide quaternary ammonium salt

IN Xing, Rong; Li, Pengcheng; Liu, Song

PA Institute of Oceanology, Chinese Academy of Sciences, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 16pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	CN 101130574	A	20080227	CN 2006-10047518	20060823
PRAI	CN 2006-10047518		20060823		

AB The title quaternary ammonium salt has a structure shown in the invention, wherein, n is polymerization degree. The quaternary ammonium salt is chito-oligosaccharide quaternary ammonium salt (straw yellow powder) with mol. weight of 2-8kD when n is 5-30, or is chitosan quaternary ammonium salt (white powder) with mol. weight of 30-160kD when n is 75-500. The quaternary ammonium salt is prepared by the steps of: (1) weighing chitosan or chito-oligosaccharide, (2) adding distilled water, and heating to 60-80°C under stirring, (3) adding isopropanol and ammonia glycidotrimethyl chloride, and reacting for 3-7h, (4) adjusting pH to 5.5 with HCl, (5) dialyzing in distilled water with a

dialysis bag (mol. weight cutoff = 8,000), and concentrating, (6) adding acetone to obtain yellow or white precipitate, and precipitating at room temperature for 30-60min, and (7) vacuum-filtering, and vacuum-drying the filter cake at 50-70°C to obtain chitosan/chito-oligosaccharide quaternary ammonium salt. In step 2, the volume/weight ratio of distilled water to chitosan or chito-oligosaccharide is (10-15):1. In step 3, the volume/weight ratio of isopropanol to chitosan or chito-oligosaccharide is (3-5):1; the mol. ratio of ammonia glycidotrimethyl chloride to chitosan or chito-oligosaccharide is (3-5):1. The obtained chitosan /chito-oligosaccharide quaternary ammonium salt has high antioxidant activity (high removal performance on superoxide anion free radicals and hydroxyl free radicals, good reducing performance, and good chelation performance), high hygroscopicity and good moisture-retaining performance, and thus can be used as antioxidant or humectant for food and cosmetics.

L25 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:498444 CAPLUS

DN 144:490568

TI Preparation of chitoooligosaccharide by degradation of chitosan under acidic and basic conditions

IN Li, Pengcheng; Guo, Zhanyong; Liu, Song; Xing, Rong; Yu, Huahua; Wang, Pibo

PA Institute of Oceanology, Chinese Academy of Sciences, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1680452	A	20051012	CN 2004-10020831	20040625
PRAI	CN 2004-10020831		20040625		
AB	The title method comprises dissolving chitosan by 1-5 vol% acid solution at the weight ratio of 1:(15-30) to give a viscous solution; reacting in presence of hydrogen peroxide at 50-80°C for 2-6 h; regulating pH to 7-10 by inorg. base, and reacting for 1-3 h; precipitating by ethanol 3-10 times of solution volume; separating and drying at below 60°.				

L25 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2006:318572 CAPLUS

DN 144:406347

TI Method for preparing new low-toxicity fungicide for crops

IN Li, Pengcheng; Liu, Song; Xing, Rong; Yu, Huahua; Guo, Zhanyong; Wang, Pibo; Li, Cuiping

PA Institute of Oceanology, Chinese Academy of Sciences, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 17 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1751576	A	20060329	CN 2004-10050480	20040922
PRAI	CN 2004-10050480		20040922		
AB	The method comprises degrading high mol. weight chitosan in 15-20 times 0.5-5% homogeneous solvent(hydrochloric acid or acetic acid) in the				

presence of hydrogen peroxide(0.5-3 times of chitosan) under microwave radiation of 340-850 W for 2-10 min, cooling, adding metal compound(Cu or Zn) under stirring, allowing to react at room temperature for

2-12

h, precipitating with acetone and/or ethanol, washing deposition with 70-80% ethanol and then anhydrous ethanol, and drying at 50-80° to obtain oligochitosan-metal coordinated complex with general formula I. The chitosan has mol. weight of (50-100)*104 and deacylation ratio of 65-100%. The fungicide has high efficiency and low toxicity.

L25 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2005:921851 CAPLUS

DN 143:388798

TI Salt-assisted acid hydrolysis of chitosan to oligomers under microwave irradiation

AU Xing, Rong; Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo; Li, Cuiping; Li, Zhien; Li, Pengcheng

CS Institute of Oceanology, The Chinese Academy of Sciences, Qingdao, 266071, Peop. Rep. China

SO Carbohydrate Research (2005), 340(13), 2150-2153

CODEN: CRBRAT; ISSN: 0008-6215

PB Elsevier B.V.

DT Journal

LA English

AB The effect of inorg. salts such as sodium chloride on the hydrolysis of chitosan in a microwave field was investigated. While it is known that microwave heating is a convenient way to obtain a wide range of products of different mol. wts. only by changing the reaction time and/or the radiation power, the addition of some inorg. salts was shown to effectively accelerate the degradation of chitosan under microwave irradiation. The mol. weight of the degraded chitosan obtained by microwave irradiation was considerably lower than that obtained by traditional heating. Moreover, the mol. weight of degraded chitosan obtained by microwave irradiation assisted under the conditions of added salt was considerably lower than that obtained by microwave irradiation without added salt. Furthermore, the effect of ionic strength of the added salts was not linked with the change of mol. weight. FTIR spectral analyses demonstrated that a significantly shorter time was required to obtain a satisfactory mol. weight by the microwave irradiation-assisted inorg. salt

method

than by microwave irradiation without inorg. salts and conventional technol.

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:1023995 CAPLUS

DN 142:299712

TI Microwave degraded chito-oligosaccharide compound and its preparation

IN Li, Pengcheng; Xing, Rong'e; Liu, Song; Yu, Huahua

PA Institute of Oceanography, Chinese Academy of Sciences, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	CN 1473857	A	20040211	CN 2003-138817	20030716
	WO 2005007702	A1	20050127	WO 2003-CN847	20031008
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CO,				

CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM,
 HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
 LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG,
 PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
 TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003275508 A1 20050204 AU 2003-275508 20031008
 US 20070089978 A1 20070426 US 2005-560296 20051212
 PRAI CN 2003-138817 A 20030716
 WO 2003-CN847 W 20031008

AB The method comprises dissolving chitosan in an acidic NaCl (KCl,
 or CaCl₂) electrolyte solution to obtain a viscous liquid, degrading the liquid
 via microwave irradiation (400-800W) for 3-12 min, neutralizing, precipitating
 at 4°, drying at 60°, and grinding to 20-100 mesh.

L25 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2008 ACS ON STN
 AN 2004:1009846 CAPLUS

DN 142:191282

TI Medical compound for preventing and treating diabetes mellitus and its
 preparation

IN Li, Pengcheng; Xing, Rong'e; Liu, Song; Yu, Huahua

PA Institute of Oceanography, Chinese Academy of Sciences, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 17 pp.

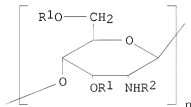
CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1472218	A	20040204	CN 2003-138785	20030705
PRAI	CN 2003-138785		20030705		
GI					



AB The chito-oligose sulfate and/or chitosan sulfate with
 formula I (where: n = 3 - 600; R1 = SO₃Na or H; R2 = SO₃Na, H, or Ac, but
 only one of R1 and R2 = H or Ac) with sulfate content of 40.73 - 42.21%
 are prepared by dissolving chitosan in 2% acetic acid under
 ultrasonic wave irradiation, neutralizing, drying to obtain chito-
 oligose, sulfonating with SO₃/DMF in formamide in the presence of
 formic acid or dichloroacetic acid at 40 - 60 °C for 1 - 2 h, precipitating
 with 95% ethanol at 4 °C for 30 min to obtain crude product,
 dissolving in water, neutralizing, dialyzing or ultrafiltering, crystallizing
 at

low temperature, and freeze drying. The chito-oligose sulfate and/or chitosan sulfate may be used to prepare the medical prepsns. for preventing and treating diabetes mellitus.

L25 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:830847 CAPLUS

DN 142:23434

TI Preparation of low-molecular-weight and high-sulfate-content chitosans under microwave radiation and their potential antioxidant activity in vitro

AU Xing, Rong; Liu, Song; Yu, Huahua; Zhang, Quanbin; Li, Zhien; Li, Pengcheng

CS Institute of Oceanology, The Chinese Academy of Sciences, Qingdao, 266071, Peop. Rep. China

SO Carbohydrate Research (2004), 339(15), 2515-2519

CODEN: CRBRAT; ISSN: 0008-6215

PB Elsevier B.V.

DT Journal

LA English

AB In the present paper microwave radiation has been used to introduce N-sulfo and O-sulfo groups into chitosan with a high degree of substitution and low-mol. weight. The sulfation of chitosan was performed in microwave ovens. It was found that microwave heating is a convenient way to obtain a wide range of products of different degrees of substitution and mol. weight only by changing reaction time or/and radiation power. Moreover, microwave radiation accelerated the degradation of sulfated chitosan, and the mol. weight of sulfated chitosan was considerably lower than that obtained by traditional heating. There are no differences in the chemical structure of sulfated chitosan obtained by microwave and by conventional technol. FTIR and ¹³C NMR spectral analyses demonstrated that a significantly shorter time is required to obtain a satisfactory degree of substitution and mol. weight by microwave radiation than by conventional technol. In this present paper, we also determined antioxidant activity of low-mol.-weight and high-sulfate-content chitosans (LCTS). The results showed LCTS could scavenge superoxide and hydroxyl radical. Its IC₅₀ is 0.025 and 1.32 mg/mL, resp. It is a potential antioxidant in vitro.

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 9 OF 14 COMPENDEX COPYRIGHT 2008 EEI on STN

AN 2005(35):3706 COMPENDEX

TI Salt-assisted acid hydrolysis of chitosan to oligomers under microwave irradiation.

AU Xing, Rong (Institute of Oceanology Chinese Academy of Sciences, Qingdao 266071, China); Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo; Li, Cuiping; Li, Zhien; Li, Pengcheng

SO Carbohydrate Research v 340 n 13 Sep 26 2005 p 2150-2153

CODEN: CRBRAT ISSN: 0008-6215

PY 2005

DT Journal

TC Experimental

LA English

AN 2005(35):3706 COMPENDEX

AB The effect of inorganic salts such as sodium chloride on the hydrolysis of chitosan in a microwave field was investigated. While it is known that microwave heating is a convenient way to obtain a wide range of products of different molecular weights only by changing the reaction time and/or the radiation power, the addition of some inorganic salts was shown to effectively accelerate the degradation of chitosan under microwave irradiation. The molecular weight of the degraded

chitosan obtained by microwave irradiation was considerably lower than that obtained by traditional heating. Moreover, the molecular weight of degraded chitosan obtained by microwave irradiation assisted under the conditions of added salt was considerably lower than that obtained by microwave irradiation without added salt. Furthermore, the effect of ionic strength of the added salts was not linked with the change of molecular weight. FTIR spectral analyses demonstrated that a significantly shorter time was required to obtain a satisfactory molecular weight by the microwave irradiation-assisted inorganic salt method than by microwave irradiation without inorganic salts and conventional technology. SCFY 2005 Elsevier Ltd. All rights reserved. 22 Refs.

L25 ANSWER 10 OF 14 IFIPAT COPYRIGHT 2008 IFI on STN
 AN 11439913 IFIPAT;IFIUDB;IFICDB
 TI LOW MOLECULAR WEIGHT CHITOSAN OLIGOSACCHARIDES AND
 ITS PREPARATION METHOD
 INF Li; Pengcheng, Shandong, CN
 Liu; Song, Shandong, CN
 Xing; Rongge, Shandong, CN
 Yu; Huahua, Shandong, CN
 IN Li Pengcheng (CN); Liu Song (CN); Xing Rongge (CN); Yu Huahua
 (CN)
 PAF INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES, Shandong, 266071, CN
 PA INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES CN
 PPA Institute of Oceanology Chinese Academy of Sciences CN (Probable)
 AG SMITH, GAMBRELL & RUSSELL, 1850 M STREET, N.W., SUITE 800, WASHINGTON,
 DC, 20036, US
 PI US 2007089978 A1 20070426
 AI US 2003-560296 20031008
 WO 2003-CN847 20031008
 20051212 PCT 371 date
 20051212 PCT 102(e) date
 PRAI CN 2003-138817 20030716
 FI US 2007089978 20070426
 DT Utility; Patent Application - First Publication
 FS CHEMICAL
 APPLICATION
 ED Entered STN: 26 Apr 2007
 Last Updated on STN: 7 May 2007
 CLMN 11
 GI 7 Figure(s).
 FIG. 1 is a FTIR spectrum of chitosan.
 FIG. 2 is a FTIR spectrum of low molecular weight chitosan
 oligosaccharides obtained under acid solvent containing NaCl.
 FIG. 3 is a FTIR spectrum of low molecular weight chitosan
 oligosaccharides obtained under acid solvent containing KCl.
 FIG. 4 is a FTIR spectrum of low molecular weight chitosan
 oligosaccharides obtained under acid solvent containing CaCl2.
 FIG. 5 is a FTIR spectrum of low molecular weight chitosan
 oligosaccharides obtained under pure acid solvent.
 FIG. 6 is a 1H NMR spectrum of low molecular weight chitosan
 oligosaccharides.
 FIG. 7 is a characteristic structure of chitosan
 oligosaccharides.
 AB The present invention relates to low molecular weight chitosan
 oligosaccharides and its preparation method. Chitosan
 oligosaccharides were obtained under microwave irradiation
 assisted the electrolyte. The method of preparing chitosan
 oligosaccharides was described as follows: acid solvent
 containing electrolyte was added to chitosan. The reaction was
 performed at 480800 W for 312 min. After irradiation ceased, the reaction

liquid was cooled to room temperature. Then the solution was adjusted to neutrality with 110 M NaOH or KOH and obtained the pale yellow floc. The processes of precipitation, filtering, desiccation and crushing are settled sequentially. Finally, chitosan oligosaccharides were obtained. Method of the present invention makes chitosan degrade to water-soluble chitosan oligosaccharides and it makes some inert substance become active. The method of the present invention can cut down energy consumption, decrease pollution and save time and raw materials. It has applying perspective of industry and potentiality of extensive market.

CLMN 11 7 Figure(s).

FIG. 1 is a FTIR spectrum of chitosan.
 FIG. 2 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under acid solvent containing NaCl.
 FIG. 3 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under acid solvent containing KCl.
 FIG. 4 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under acid solvent containing CaCl₂.
 FIG. 5 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under pure acid solvent.
 FIG. 6 is a ¹H NMR spectrum of low molecular weight chitosan oligosaccharides.
 FIG. 7 is a characteristic structure of chitosan oligosaccharides.

L25 ANSWER 11 OF 14 USPATFULL ON STN

AN 2007:104016 USPATFULL

TI Low molecular weight chitosan oligosaccharides and its preparation method

IN Li, Pengcheng, Shandong, CHINA

Xing, Rong, Shandong, CHINA

Liu, Song, Shandong, CHINA

Yu, Huahua, Shandong, CHINA

PA INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES, Shandong, CHINA, 266071 (non-U.S. corporation)

PI US 2007089978 A1 20070426

AI US 2003-560296 A1 20031008 (10)

WO 2003-CN847 20031008

20051212 PCT 371 date

PRAI CN 2003-138817 20030716

DT Utility

FS APPLICATION

LREP SMITH, GAMBRELL & RUSSELL, 1850 M STREET, N.W., SUITE 800, WASHINGTON, DC, 20036, US

CLMN Number of Claims: 11

ECL Exemplary Claim: 1

DRWN 3 Drawing Page(s)

LN.CNT 395

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to low molecular weight chitosan oligosaccharides and its preparation method. Chitosan oligosaccharides were obtained under microwave irradiation assisted the electrolyte. The method of preparing chitosan oligosaccharides was described as follows: acid solvent containing electrolyte was added to chitosan. The reaction was performed at 480.about.800 W for 3.about.12 min. After irradiation ceased, the reaction liquid was cooled to room temperature. Then the solution was adjusted to neutrality with 1.about.10 M NaOH or KOH and obtained the pale yellow floc. The processes of precipitation, filtering, desiccation and crushing are settled sequentially. Finally, chitosan oligosaccharides were obtained. Method of the

present invention makes chitosan degrade to water-soluble chitosan oligosaccharides and it makes some inert substance become active. The method of the present invention can cut down energy consumption, decrease pollution and save time and raw materials. It has applying perspective of industry and potentiality of extensive market.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L25 ANSWER 12 OF 14 MEDLINE on STN
 AN 2005442207 MEDLINE
 DN PubMed ID: 16040021
 TI Salt-assisted acid hydrolysis of chitosan to oligomers under microwave irradiation.
 AU Xing Rongge; Liu Song; Yu Huahua; Guo Zhanyong; Wang Pibo; Li Cuiping; Li Zhien; Li Pengcheng
 CS Institute of Oceanology, The Chinese Academy of Sciences, Qingdao, China.
 SO Carbohydrate research, (2005 Sep 26) Vol. 340, No. 13, pp. 2150-3.
 Journal code: 0043535. ISSN: 0008-6215.
 CY Netherlands
 DT Journal; Article; (JOURNAL ARTICLE)
 (RESEARCH SUPPORT, NON-U.S. GOV'T)
 LA English
 FS Priority Journals
 EM 200512
 ED Entered STN: 20 Aug 2005
 Last Updated on STN: 15 Dec 2005
 Entered Medline: 2 Dec 2005
 AB The effect of inorganic salts such as sodium chloride on the hydrolysis of chitosan in a microwave field was investigated. While it is known that microwave heating is a convenient way to obtain a wide range of products of different molecular weights only by changing the reaction time and/or the radiation power, the addition of some inorganic salts was shown to effectively accelerate the degradation of chitosan under microwave irradiation. The molecular weight of the degraded chitosan obtained by microwave irradiation was considerably lower than that obtained by traditional heating. Moreover, the molecular weight of degraded chitosan obtained by microwave irradiation assisted under the conditions of added salt was considerably lower than that obtained by microwave irradiation without added salt. Furthermore, the effect of ionic strength of the added salts was not linked with the change of molecular weight. FTIR spectral analyses demonstrated that a significantly shorter time was required to obtain a satisfactory molecular weight by the microwave irradiation-assisted inorganic salt method than by microwave irradiation without inorganic salts and conventional technology.

L25 ANSWER 13 OF 14 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights reserved on STN
 AN 2005370427 EMBASE
 TI Salt-assisted acid hydrolysis of chitosan to oligomers under microwave irradiation.
 AU Xing, Rongge; Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo; Li, Cuiping; Li, Zhien; Li, Pengcheng (correspondence)
 CS Institute of Oceanology, Chinese Academy of Sciences, Qingdao 266071, China. xingrongge@ms.qdio.ac.cn; pclli@ms.qdio.ac.cn
 AU Xing, Rongge; Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo; Li, Cuiping
 CS Graduate School of the Chinese Academy of Sciences, Beijing 100039, China. xingrongge@ms.qdio.ac.cn
 SO Carbohydrate Research, (26 Sep 2005) Vol. 340, No. 13, pp. 2150-2153.
 Refs: 22
 ISSN: 0008-6215 CODEN: CRBRAT

PUI S 0008-6215(05)00317-4

CY United Kingdom

DT Journal; Article

FS 029 Clinical and Experimental Biochemistry

LA English

SL English

ED Entered STN: 9 Sep 2005

Last Updated on STN: 9 Sep 2005

AB The effect of inorganic salts such as sodium chloride on the hydrolysis of chitosan in a microwave field was investigated. While it is known that microwave heating is a convenient way to obtain a wide range of products of different molecular weights only by changing the reaction time and/or the radiation power, the addition of some inorganic salts was shown to effectively accelerate the degradation of chitosan under microwave irradiation. The molecular weight of the degraded chitosan obtained by microwave irradiation was considerably lower than that obtained by traditional heating. Moreover, the molecular weight of degraded chitosan obtained by microwave irradiation assisted under the conditions of added salt was considerably lower than that obtained by microwave irradiation without added salt. Furthermore, the effect of ionic strength of the added salts was not linked with the change of molecular weight. FTIR spectral analyses demonstrated that a significantly shorter time was required to obtain a satisfactory molecular weight by the microwave irradiation-assisted inorganic salt method than by microwave irradiation without inorganic salts and conventional technology. .COPYRG. 2005 Elsevier Ltd. All rights reserved.

L25 ANSWER 14 OF 14 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

AN 2005:538673 BIOSIS

DN PREV200510313286

TI Salt-accelerated acid hydrolysis of chitosan to oligomers under microwave irradiation.

AU Xing, Rong; Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo; Li, Cuiping; Li, Zhien; Li, Pengcheng [Reprint Author]

CS Chinese Acad Sci, Inst Oceanol, Qingdao 266071, Peoples R China
xingrong@ms.qdio.ac.cn; pcl@ms.qdio.ac.cn

SO Carbohydrate Research, (SEP 26 2005) Vol. 340, No. 13, pp. 2150-2153.
CODEN: CRBRAT. ISSN: 0008-6215.

DT Article

LA English

ED Entered STN: 1 Dec 2005

Last Updated on STN: 1 Dec 2005

AB The effect of inorganic salts such as sodium chloride on the hydrolysis of chitosan in a microwave field was investigated. While it is known that microwave heating is a convenient way to obtain a wide range of products of different molecular weights only by changing the reaction time and/or the radiation power, the addition of some inorganic salts was shown to effectively accelerate the degradation of chitosan under microwave irradiation. The molecular weight of the degraded chitosan obtained by microwave irradiation was considerably lower than that obtained by traditional heating. Moreover, the molecular weight of degraded chitosan obtained by microwave irradiation assisted under the conditions of added salt was considerably lower than that obtained by microwave irradiation without added salt. Furthermore, the effect of ionic strength of the added salts was not linked with the change of molecular weight. FTIR spectral analyses demonstrated that a significantly shorter time was required to obtain a satisfactory molecular weight by the microwave irradiation-assisted inorganic salt method than by microwave irradiation without inorganic salts and conventional technology. (C) 2005 Elsevier Ltd. All rights reserved.

=> s Xing Rongge/AU
 'AU' IS NOT A VALID FIELD CODE
 'AU' IS NOT A VALID FIELD CODE
 L26 143 XING RONGGE/AU

=> s l26 and chitosan
 L27 107 L26 AND CHITOSAN

=> s l27 and oligo?
 15 FILES SEARCHED...
 L28 12 L27 AND OLIGO?

=> dis l28 1-12 bib abs

L28 ANSWER 1 OF 12 BABS COPYRIGHT 2008 BEILSTEIN MDL on STN
 AN 6516228 BABS
 TI Salt-assisted acid hydrolysis of chitosan to oligomers
 under microwave irradiation
 AU Xing, Rongge; Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo;
 Li, Cuiping; Li, Zhien; Li, Pengcheng
 SO Carbohydr. Res. (2005), 340(13), 2150 - 2153
 CODEN: CRBRAT
 DT Journal
 AN 6516228 BABS
 AB The effect of inorganic salts such as sodium chloride on the hydrolysis of
 chitosan in a microwave field was investigated. While it is known
 that microwave heating is a convenient way to obtain a wide range of
 products of different molecular weights only by changing the reaction time
 and/or the radiation power, the addition of some inorganic salts was shown
 to effectively accelerate the degradation of chitosan under
 microwave irradiation. The molecular weight of the degraded
 chitosan obtained by microwave irradiation was considerably lower
 than that obtained by traditional heating. Moreover, the molecular weight
 of degraded chitosan obtained by microwave irradiation assisted
 under the conditions of added salt was considerably lower than that
 obtained by microwave irradiation without added salt. Furthermore, the
 effect of ionic strength of the added salts was not linked with the change
 of molecular weight. FTIR spectral analyses demonstrated that a
 significantly shorter time was required to obtain a satisfactory molecular
 weight by the microwave irradiation-assisted inorganic salt method than by
 microwave irradiation without inorganic salts and conventional technology.

L28 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2008:267575 CAPLUS
 TI Preparation and application of chitosan/chito-
 oligosaccharide quaternary ammonium salt
 IN Xing, Rongge; Li, Pengcheng; Liu, Song
 PA Institute of Oceanology, Chinese Academy of Sciences, Peop. Rep. China
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 16pp.
 CODEN: CNXXEV

DT Patent
 LA Chinese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 101130574	A	20080227	CN 2006-10047518	20060823
PRAI	CN 2006-10047518		20060823		

AB The title quaternary ammonium salt has a structure shown in the invention,
 wherein, n is polymerization degree. The quaternary ammonium salt is chito-

oligosaccharide quaternary ammonium salt (straw yellow powder) with mol. weight of 2-8kD when n is 5-30, or is chitosan quaternary ammonium salt (white powder) with mol. weight of 30-160kD when n is 75-500. The quaternary ammonium salt is prepared by the steps of: (1) weighing chitosan or chito-oligosaccharide, (2) adding distilled water, and heating to 60-80°C under stirring, (3) adding isopropanol and ammonia glycidotrimethyl chloride, and reacting for 3-7h, (4) adjusting pH to 5.5 with HCl, (5) dialyzing in distilled water with a dialysis bag (mol. weight cutoff = 8,000), and concentrating, (6) adding acetone to obtain yellow or white precipitate, and precipitating at room temperature for 30-60min, and (7) vacuum-filtering, and vacuum-drying the filter cake at 50-70°C to obtain chitosan/chito-oligosaccharide quaternary ammonium salt. In step 2, the volume/weight ratio of distilled water to chitosan or chito-oligosaccharide is (10-15):1. In step 3, the volume/weight ratio of isopropanol to chitosan or chito-oligosaccharide is (3-5):1; the mol. ratio of ammonia glycidotrimethyl chloride to chitosan or chito-oligosaccharide is (3-5):1. The obtained chitosan /chito-oligosaccharide quaternary ammonium salt has high antioxidant activity (high removal performance on superoxide anion free radicals and hydroxyl free radicals, good reducing performance, and good chelation performance), high hygroscopicity and good moisture-retaining performance, and thus can be used as antioxidant or humectant for food and cosmetics.

L28 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2006:498444 CAPLUS
 DN 144:490568
 TI Preparation of chitoooligosaccharide by degradation of chitosan under acidic and basic conditions
 IN Li, Pengcheng; Guo, Zhanyong; Liu, Song; Xing, Rong; Yu, Huahua; Wang, Pibo
 PA Institute of Oceanology, Chinese Academy of Sciences, Peop. Rep. China
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp.
 CODEN: CNXXEV
 DT Patent
 LA Chinese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1680452	A	20051012	CN 2004-10020831	20040625
PRAI	CN 2004-10020831		20040625		

AB The title method comprises dissolving chitosan by 1-5 vol% acid solution at the weight ratio of 1:(15-30) to give a viscous solution; reacting in presence of hydrogen peroxide at 50-80°C for 2-6 h; regulating pH to 7-10 by inorg. base, and reacting for 1-3 h; precipitating by ethanol 3-10 times of solution volume; separating and drying at below 60°.

L28 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2006:318572 CAPLUS
 DN 144:406347
 TI Method for preparing new low-toxicity fungicide for crops
 IN Li, Pengcheng; Liu, Song; Xing, Rong; Yu, Huahua; Guo, Zhanyong; Wang, Pibo; Li, Cuiping
 PA Institute of Oceanology, Chinese Academy of Sciences, Peop. Rep. China
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 17 pp.
 CODEN: CNXXEV
 DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	CN 1751576	A	20060329	CN 2004-10050480	20040922
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PRAI	CN 2004-10050480	20040922			
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AB The method comprises degrading high mol. weight chitosan in 15-20 times 0.5-5% homogeneous solvent(hydrochloric acid or acetic acid) in the presence of hydrogen peroxide(0.5-3 times of chitosan) under microwave radiation of 340-850 W for 2-10 min, cooling, adding metal compound(Cu or Zn) under stirring, allowing to react at room temperature for

2-12

h, precipitating with acetone and/or ethanol, washing deposition with 70-80% ethanol and then anhydrous ethanol, and drying at 50-80° to obtain oligochitosan-metal coordinated complex with general formula I. The chitosan has mol. weight of (50-100)*104 and deacylation ratio of 65-100%. The fungicide has high efficiency and low toxicity.

L28 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2005:921851 CAPLUS

DN 143:388798

TI Salt-assisted acid hydrolysis of chitosan to oligomers under microwave irradiation

AU Xing, Rong; Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo;

Li, Cuiping; Li, Zhien; Li, Pengcheng

CS Institute of Oceanology, The Chinese Academy of Sciences, Qingdao, 266071, Peop. Rep. China

SO Carbohydrate Research (2005), 340(13), 2150-2153

CODEN: CRBRAT; ISSN: 0008-6215

PB Elsevier B.V.

DT Journal

LA English

AB The effect of inorg. salts such as sodium chloride on the hydrolysis of chitosan in a microwave field was investigated. While it is known that microwave heating is a convenient way to obtain a wide range of products of different mol. wts. only by changing the reaction time and/or the radiation power, the addition of some inorg. salts was shown to effectively accelerate the degradation of chitosan under microwave irradiation. The mol. weight of the degraded chitosan obtained by microwave irradiation was considerably lower than that obtained by traditional heating. Moreover, the mol. weight of degraded chitosan obtained by microwave irradiation assisted under the conditions of added salt was considerably lower than that obtained by microwave irradiation without added salt. Furthermore, the effect of ionic strength of the added salts was not linked with the change of mol. weight FTIR spectral analyses demonstrated that a significantly shorter time was required to obtain a satisfactory mol. weight by the microwave irradiation-assisted inorg. salt

method

than by microwave irradiation without inorg. salts and conventional technol.

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:830847 CAPLUS

DN 142:23434

TI Preparation of low-molecular-weight and high-sulfate-content chitosans under microwave radiation and their potential antioxidant activity in vitro

AU Xing, Rong; Liu, Song; Yu, Huahua; Zhang, Quanbin; Li, Zhien;

Li, Pengcheng

CS Institute of Oceanology, The Chinese Academy of Sciences, Qingdao, 266071,

Peop. Rep. China
SO Carbohydrate Research (2004), 339(15), 2515-2519
CODEN: CRBRAT; ISSN: 0008-6215

PB Elsevier B.V.

DT Journal

LA English

AB In the present paper microwave radiation has been used to introduce N-sulfo and O-sulfo groups into chitosan with a high degree of substitution and low-mol. weight. The sulfation of chitosan was performed in microwave ovens. It was found that microwave heating is a convenient way to obtain a wide range of products of different degrees of substitution and mol. weight only by changing reaction time or/and radiation power. Moreover, microwave radiation accelerated the degradation of sulfated chitosan, and the mol. weight of sulfated chitosan was considerably lower than that obtained by traditional heating. There are no differences in the chemical structure of sulfated chitosan obtained by microwave and by conventional technol. FTIR and ¹³C NMR spectral analyses demonstrated that a significantly shorter time is required to obtain a satisfactory degree of substitution and mol. weight by microwave radiation than by conventional technol. In this present paper, we also determined antioxidant activity of low-mol.-weight and high-sulfate-content chitosans (LCTS). The results showed LCTS could scavenge superoxide and hydroxyl radical. Its IC₅₀ is 0.025 and 1.32 mg/mL, resp. It is a potential antioxidant in vitro.

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 7 OF 12 COMPENDEX COPYRIGHT 2008 EEI ON STN

AN 2005(35):3706 COMPENDEX

TI Salt-assisted acid hydrolysis of chitosan to oligomers under microwave irradiation.

AU Xing, Rong (Institute of Oceanology Chinese Academy of Sciences, Qingdao 266071, China); Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo; Li, Cuiping; Li, Zhien; Li, Pengcheng

SO Carbohydrate Research v 340 n 13 Sep 26 2005 2005.p 2150-2153

CODEN: CRBRAT ISSN: 0008-6215

PY 2005

DT Journal

TC Experimental

LA English

AN 2005(35):3706 COMPENDEX

AB The effect of inorganic salts such as sodium chloride on the hydrolysis of chitosan in a microwave field was investigated. While it is known that microwave heating is a convenient way to obtain a wide range of products of different molecular weights only by changing the reaction time and/or the radiation power, the addition of some inorganic salts was shown to effectively accelerate the degradation of chitosan under microwave irradiation. The molecular weight of the degraded chitosan obtained by microwave irradiation was considerably lower than that obtained by traditional heating. Moreover, the molecular weight of degraded chitosan obtained by microwave irradiation assisted under the conditions of added salt was considerably lower than that obtained by microwave irradiation without added salt. Furthermore, the effect of ionic strength of the added salts was not linked with the change of molecular weight. FTIR spectral analyses demonstrated that a significantly shorter time was required to obtain a satisfactory molecular weight by the microwave irradiation-assisted inorganic salt method than by microwave irradiation without inorganic salts and conventional technology. SCYP 2005 Elsevier Ltd. All rights reserved. 22 Refs.

L28 ANSWER 8 OF 12 IFIPAT COPYRIGHT 2008 IFI ON STN

AN 11439913 IFIPAT;IFIUDB;IFICDB
TI LOW MOLECULAR WEIGHT CHITOSAN OLIGOSACCHARIDES AND
ITS PREPARATION METHOD
INF Li; Pengcheng, Shandong, CN
Liu; Song, Shandong, CN
Xing; Rong, Shandong, CN
Yu; Huahua, Shandong, CN
IN Li Pengcheng (CN); Liu Song (CN); Xing Rong (CN); Yu Huahua
(CN)
PAF INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES, Shandong, 266071, CN
PA INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES CN
PPA Institute of Oceanology Chinese Academy of Sciences CN (Probable)
AG SMITH, GAMBRELL & RUSSELL, 1850 M STREET, N.W., SUITE 800, WASHINGTON,
DC, 20036, US
PI US 2007089978 A1 20070426
AI US 2003-560296 20031008
WO 2003-CN847 20031008
20051212 PCT 371 date
20051212 PCT 102(e) date
PRAI CN 2003-138817 20030716
FI US 2007089978 20070426
DT Utility; Patent Application - First Publication
FS CHEMICAL
APPLICATION
ED Entered STN: 26 Apr 2007
Last Updated on STN: 7 May 2007
CLMN 11
GI 7 Figure(s).
FIG. 1 is a FTIR spectrum of chitosan.
FIG. 2 is a FTIR spectrum of low molecular weight chitosan
oligosaccharides obtained under acid solvent containing NaCl.
FIG. 3 is a FTIR spectrum of low molecular weight chitosan
oligosaccharides obtained under acid solvent containing KCl.
FIG. 4 is a FTIR spectrum of low molecular weight chitosan
oligosaccharides obtained under acid solvent containing CaCl2.
FIG. 5 is a FTIR spectrum of low molecular weight chitosan
oligosaccharides obtained under pure acid solvent.
FIG. 6 is a 1H NMR spectrum of low molecular weight chitosan
oligosaccharides.
FIG. 7 is a characteristic structure of chitosan
oligosaccharides.
AB The present invention relates to low molecular weight chitosan
oligosaccharides and its preparation method. Chitosan
oligosaccharides were obtained under microwave irradiation
assisted the electrolyte. The method of preparing chitosan
oligosaccharides was described as follows: acid solvent
containing electrolyte was added to chitosan. The reaction was
performed at 480800 W for 312 min. After irradiation ceased, the reaction
liquid was cooled to room temperature. Then the solution was adjusted to
neutrality with 110 M NaOH or KOH and obtained the pale yellow floc. The
processes of precipitation, filtering, desiccation and crushing are
settled sequentially. Finally, chitosan
oligosaccharides were obtained. Method of the present invention
makes chitosan degrade to water-soluble chitosan
oligosaccharides and it makes some inert substance become active.
The method of the present invention can cut down energy consumption,
decrease pollution and save time and raw materials. It has applying
perspective of industry and potentiality of extensive market.
CLMN 11 7 Figure(s).
FIG. 1 is a FTIR spectrum of chitosan.
FIG. 2 is a FTIR spectrum of low molecular weight chitosan

oligosaccharides obtained under acid solvent containing NaCl.
 FIG. 3 is a FTIR spectrum of low molecular weight chitosan
 oligosaccharides obtained under acid solvent containing KCl.
 FIG. 4 is a FTIR spectrum of low molecular weight chitosan
 oligosaccharides obtained under acid solvent containing CaCl₂.
 FIG. 5 is a FTIR spectrum of low molecular weight chitosan
 oligosaccharides obtained under pure acid solvent.
 FIG. 6 is a ¹H NMR spectrum of low molecular weight chitosan
 oligosaccharides.
 FIG. 7 is a characteristic structure of chitosan
 oligosaccharides.

L28 ANSWER 9 OF 12 USPTFULL on STN
 AN 2007:104016 USPTFULL
 TI Low molecular weight chitosan oligosaccharides and
 its preparation method
 IN Li, Pengcheng, Shandong, CHINA
 Xing, Rongge, Shandong, CHINA
 Liu, Song, Shandong, CHINA
 Yu, Huahua, Shandong, CHINA
 PA INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES, Shandong, CHINA,
 266071 (non-U.S. corporation)
 PI US 2007089978 A1 20070426
 AI US 2003-560296 A1 20031008 (10)
 WO 2003-CN847 20031008
 20051212 PCI 371 date
 PRAI CN 2003-138817 20030716
 DT Utility
 FS APPLICATION
 LREP SMITH, GAMBRELL & RUSSELL, 1850 M STREET, N.W., SUITE 800, WASHINGTON,
 DC, 20036, US
 CLMN Number of Claims: 11
 ECL Exemplary Claim: 1
 DRWN 3 Drawing Page(s)
 LN.CNT 395

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to low molecular weight chitosan
 oligosaccharides and its preparation method. Chitosan
 oligosaccharides were obtained under microwave irradiation
 assisted the electrolyte. The method of preparing chitosan
 oligosaccharides was described as follows: acid solvent
 containing electrolyte was added to chitosan. The reaction was
 performed at 480.about.800 W for 3.about.12 min. After irradiation
 ceased, the reaction liquid was cooled to room temperature. Then the
 solution was adjusted to neutrality with 1.about.10 M NaOH or KOH and
 obtained the pale yellow floc. The processes of precipitation,
 filtering, desiccation and crushing are settled sequentially. Finally,
 chitosan oligosaccharides were obtained. Method of the
 present invention makes chitosan degrade to water-soluble
 chitosan oligosaccharides and it makes some inert
 substance become active. The method of the present invention can cut
 down energy consumption, decrease pollution and save time and raw
 materials. It has applying perspective of industry and potentiality of
 extensive market.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 10 OF 12 MEDLINE on STN
 AN 2005442207 MEDLINE
 DN PubMed ID: 16040021
 TI Salt-assisted acid hydrolysis of chitosan to oligomers

under microwave irradiation.

AU Xing Rongge; Liu Song; Yu Huahua; Guo Zhanyong; Wang Pibo; Li
Cuiping; Li Zhien; Li Pengcheng

CS Institute of Oceanology, The Chinese Academy of Sciences, Qingdao, China.

SO Carbohydrate research, (2005 Sep 26) Vol. 340, No. 13, pp. 2150-3.
Journal code: 0043535. ISSN: 0008-6215.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)

LA English

FS Priority Journals

EM 200512

ED Entered STN: 20 Aug 2005
Last Updated on STN: 15 Dec 2005
Entered Medline: 2 Dec 2005

AB The effect of inorganic salts such as sodium chloride on the hydrolysis of
chitosan in a microwave field was investigated. While it is known
that microwave heating is a convenient way to obtain a wide range of
products of different molecular weights only by changing the reaction time
and/or the radiation power, the addition of some inorganic salts was shown
to effectively accelerate the degradation of chitosan under
microwave irradiation. The molecular weight of the degraded
chitosan obtained by microwave irradiation was considerably lower
than that obtained by traditional heating. Moreover, the molecular weight
of degraded chitosan obtained by microwave irradiation assisted
under the conditions of added salt was considerably lower than that
obtained by microwave irradiation without added salt. Furthermore, the
effect of ionic strength of the added salts was not linked with the change
of molecular weight. FTIR spectral analyses demonstrated that a
significantly shorter time was required to obtain a satisfactory molecular
weight by the microwave irradiation-assisted inorganic salt method than by
microwave irradiation without inorganic salts and conventional technology.

L28 ANSWER 11 OF 12 EMBASE COPYRIGHT (c) 2008 Elsevier B.V. All rights
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AN 2005370427 EMBASE

TI Salt-assisted acid hydrolysis of chitosan to oligomers
under microwave irradiation.

AU Xing, Rongge; Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo;
Li, Cuiping; Li, Zhien; Li, Pengcheng (correspondence)

CS Institute of Oceanology, Chinese Academy of Sciences, Qingdao 266071,
China. xingrongge@ms.qdio.ac.cn; pcl@ms.qdio.ac.cn

AU Xing, Rongge; Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo;
Li, Cuiping

CS Graduate School of the Chinese Academy of Sciences, Beijing 100039, China.
xingrongge@ms.qdio.ac.cn

SO Carbohydrate Research, (26 Sep 2005) Vol. 340, No. 13, pp. 2150-2153.
Refs: 22
ISSN: 0008-6215 CODEN: CRBRAT

PUI S 0008-6215(05)00317-4

CY United Kingdom

DT Journal; Article

FS 029 Clinical and Experimental Biochemistry

LA English

SL English

ED Entered STN: 9 Sep 2005
Last Updated on STN: 9 Sep 2005

AB The effect of inorganic salts such as sodium chloride on the hydrolysis of
chitosan in a microwave field was investigated. While it is known
that microwave heating is a convenient way to obtain a wide range of
products of different molecular weights only by changing the reaction time

and/or the radiation power, the addition of some inorganic salts was shown to effectively accelerate the degradation of chitosan under microwave irradiation. The molecular weight of the degraded chitosan obtained by microwave irradiation was considerably lower than that obtained by traditional heating. Moreover, the molecular weight of degraded chitosan obtained by microwave irradiation assisted under the conditions of added salt was considerably lower than that obtained by microwave irradiation without added salt. Furthermore, the effect of ionic strength of the added salts was not linked with the change of molecular weight. FTIR spectral analyses demonstrated that a significantly shorter time was required to obtain a satisfactory molecular weight by the microwave irradiation-assisted inorganic salt method than by microwave irradiation without inorganic salts and conventional technology. .COPYRG. 2005 Elsevier Ltd. All rights reserved.

L28 ANSNR 12 OF 12 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on
STN
AN 2005:538673 BIOSIS
DN PREV200510313286
TI Salt-assisted acid hydrolysis of chitosan to oligomers
under microwave irradiation.
AU Xing, Rong; Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo;
Li, Cuiping; Li, Zhien; Li, Pengcheng [Reprint Author]
CS Chinese Acad Sci, Inst Oceanol, Qingdao 266071, Peoples R China
xingrong@ms.qdio.ac.cn; pcl@ms.qdio.ac.cn
SO Carbohydrate Research, (SEP 26 2005) Vol. 340, No. 13, pp. 2150-2153.
CODEN: CRBRAT. ISSN: 0008-6215.
DT Article
LA English
ED Entered STN: 1 Dec 2005
Last Updated on STN: 1 Dec 2005
AB The effect of inorganic salts such as sodium chloride on the hydrolysis of
chitosan in a microwave field was investigated. While it is known
that microwave heating is a convenient way to obtain a wide range of
products of different molecular weights only by changing the reaction time
and/or the radiation power, the addition of some inorganic salts was shown
to effectively accelerate the degradation of chitosan under
microwave irradiation. The molecular weight of the degraded
chitosan obtained by microwave irradiation was considerably lower
than that obtained by traditional heating. Moreover, the molecular weight
of degraded chitosan obtained by microwave irradiation assisted
under the conditions of added salt was considerably lower than that
obtained by microwave irradiation without added salt. Furthermore, the
effect of ionic strength of the added salts was not linked with the change
of molecular weight. FTIR spectral analyses demonstrated that a
significantly shorter time was required to obtain a satisfactory molecular
weight by the microwave irradiation-assisted inorganic salt method than by
microwave irradiation without inorganic salts and conventional technology.
(C) 2005 Elsevier Ltd. All rights reserved.

=> s Liu Song/AU
'AU' IS NOT A VALID FIELD CODE
'AU' IS NOT A VALID FIELD CODE
75% OF LIMIT FOR L#S REACHED
L29 680 LIU SONG/AU

=> s l29 and (chitosan(a)oligo?)
L30 6 L29 AND (CHITOSAN(A) OLIGO?)

=> dis l30 1-6 bib abs

L30 ANSWER 1 OF 6 BABS COPYRIGHT 2008 BEILSTEIN MDL on STN
 AN 6516228 BABS
 TI Salt-assisted acid hydrolysis of chitosan to oligomers under microwave irradiation
 AU Xing, Rong; Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo; Li, Cuiping; Li, Zhien; Li, Pengcheng
 SO Carbohydr. Res. (2005), 340(13), 2150 - 2153
 CODEN: CRBRAT
 DT Journal
 AN 6516228 BABS
 AB The effect of inorganic salts such as sodium chloride on the hydrolysis of chitosan in a microwave field was investigated. While it is known that microwave heating is a convenient way to obtain a wide range of products of different molecular weights only by changing the reaction time and/or the radiation power, the addition of some inorganic salts was shown to effectively accelerate the degradation of chitosan under microwave irradiation. The molecular weight of the degraded chitosan obtained by microwave irradiation was considerably lower than that obtained by traditional heating. Moreover, the molecular weight of degraded chitosan obtained by microwave irradiation assisted under the conditions of added salt was considerably lower than that obtained by microwave irradiation without added salt. Furthermore, the effect of ionic strength of the added salts was not linked with the change of molecular weight. FTIR spectral analyses demonstrated that a significantly shorter time was required to obtain a satisfactory molecular weight by the microwave irradiation-assisted inorganic salt method than by microwave irradiation without inorganic salts and conventional technology.

L30 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:1023995 CAPLUS
 DN 142:299712
 TI Microwave degraded chito-oligosaccharide compound and its preparation
 IN Li, Pengcheng; Xing, Rong'e; Liu, Song; Yu, Huahua
 PA Institute of Oceanography, Chinese Academy of Sciences, Peop. Rep. China
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.
 CODEN: CNXXEV
 DT Patent
 LA Chinese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1473857	A	20040211	CN 2003-138817	20030716
	WO 2005007702	A1	20050127	WO 2003-CN847	20031008
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZA, AG, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003275508	A1	20050204	AU 2003-275508	20031008
	US 20070089978	A1	20070426	US 2005-560296	20051212
FRAI	CN 2003-138817	A	20030716		
	WO 2003-CN847	W	20031008		
AB	The method comprises dissolving chitosan in an acidic NaCl (KCl, or CaCl ₂) electrolyte solution to obtain a viscous liquid, degrading the liquid via microwave irradiation (400-800W) for 3-12 min, neutralizing, precipitating at				

4°, drying at 60°, and grinding to 20-100 mesh.

L30 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:830847 CAPLUS

DN 142:23434

TI Preparation of low-molecular-weight and high-sulfate-content chitosans under microwave radiation and their potential antioxidant activity in vitro

AU Xing, Rong; Liu, Song; Yu, Huahua; Zhang, Quanbin; Li, Zhien; Li, Pengcheng

CS Institute of Oceanology, The Chinese Academy of Sciences, Qingdao, 266071, Peop. Rep. China

SO Carbohydrate Research (2004), 339(15), 2515-2519

CODEN: CRBRAT; ISSN: 0008-6215

PB Elsevier B.V.

DT Journal

LA English

AB In the present paper microwave radiation has been used to introduce N-sulfo and O-sulfo groups into chitosan with a high degree of substitution and low-mol. weight. The sulfation of chitosan was performed in microwave ovens. It was found that microwave heating is a convenient way to obtain a wide range of products of different degrees of substitution and mol. weight only by changing reaction time or/and radiation power. Moreover, microwave radiation accelerated the degradation of sulfated chitosan, and the mol. weight of sulfated chitosan was considerably lower than that obtained by traditional heating. There are no differences in the chemical structure of sulfated chitosan obtained by microwave and by conventional technol. FTIR and ¹³C NMR spectral analyses demonstrated that a significantly shorter time is required to obtain a satisfactory degree of substitution and mol. weight by microwave radiation than by conventional technol. In this present paper, we also determined antioxidant activity of low-mol.-weight and high-sulfate-content chitosans (LCTS). The results showed LCTS could scavenge superoxide and hydroxyl radical. Its IC₅₀ is 0.025 and 1.32 mg/mL, resp. It is a potential antioxidant in vitro.

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 4 OF 6 COMPENDEX COPYRIGHT 2008 EEI on STN

AN 2005(35):3706 COMPENDEX

TI Salt-assisted acid hydrolysis of chitosan to oligomers under microwave irradiation.

AU Xing, Rong (Institute of Oceanology Chinese Academy of Sciences, Qingdao 266071, China); Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Fibo; Li, Cuiping; Li, Zhien; Li, Pengcheng

SO Carbohydrate Research v 340 n 13 Sep 26 2005 p 2150-2153

CODEN: CRBRAT ISSN: 0008-6215

PY 2005

DT Journal

TC Experimental

LA English

AN 2005(35):3706 COMPENDEX

AB The effect of inorganic salts such as sodium chloride on the hydrolysis of chitosan in a microwave field was investigated. While it is known that microwave heating is a convenient way to obtain a wide range of products of different molecular weights only by changing the reaction time and/or the radiation power, the addition of some inorganic salts was shown to effectively accelerate the degradation of chitosan under microwave irradiation. The molecular weight of the degraded chitosan obtained by microwave irradiation was considerably lower than that obtained by traditional heating. Moreover, the molecular weight of degraded chitosan

obtained by microwave irradiation assisted under the conditions of added salt was considerably lower than that obtained by microwave irradiation without added salt. Furthermore, the effect of ionic strength of the added salts was not linked with the change of molecular weight. FTIR spectral analyses demonstrated that a significantly shorter time was required to obtain a satisfactory molecular weight by the microwave irradiation-assisted inorganic salt method than by microwave irradiation without inorganic salts and conventional technology. \$CPY 2005 Elsevier Ltd. All rights reserved. 22 Refs.

L30 ANSWER 5 OF 6 IFIPAT COPYRIGHT 2008 IFI on STN
 AN 11439913 IFIPAT;IFIUDB;IFICDB
 TI LOW MOLECULAR WEIGHT CHITOSAN OLIGOSACCHARIDES AND
 ITS PREPARATION METHOD
 INF Li; Pengcheng, Shandong, CN
 Liu; Song, Shandong, CN
 Xing; Rong, Shandong, CN
 Yu; Huahua, Shandong, CN
 IN Li Pengcheng (CN); Liu Song (CN); Xing Rong (CN); Yu Huahua
 (CN)
 PAF INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES, Shandong, 266071, CN
 PA INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES CN
 PPA Institute of Oceanology Chinese Academy of Sciences CN (Probable)
 AG SMITH, GAMBRELL & RUSSELL, 1850 M STREET, N.W., SUITE 800, WASHINGTON,
 DC, 20036, US
 PI US 2007089978 A1 20070426
 AI US 2003-560296 20031008
 WO 2003-CN847 20031008
 20051212 PCT 371 date
 20051212 PCT 102(e) date
 PRAI CN 2003-138817 20030716
 FI US 2007089978 20070426
 DT Utility; Patent Application - First Publication
 FS CHEMICAL
 APPLICATION
 ED Entered STN: 26 Apr 2007
 Last Updated on STN: 7 May 2007
 CLMN 11
 GI 7 Figure(s).
 FIG. 1 is a FTIR spectrum of chitosan.
 FIG. 2 is a FTIR spectrum of low molecular weight chitosan
 oligosaccharides obtained under acid solvent containing NaCl.
 FIG. 3 is a FTIR spectrum of low molecular weight chitosan
 oligosaccharides obtained under acid solvent containing KCl.
 FIG. 4 is a FTIR spectrum of low molecular weight chitosan
 oligosaccharides obtained under acid solvent containing CaCl2.
 FIG. 5 is a FTIR spectrum of low molecular weight chitosan
 oligosaccharides obtained under pure acid solvent.
 FIG. 6 is a 1H NMR spectrum of low molecular weight chitosan
 oligosaccharides.
 FIG. 7 is a characteristic structure of chitosan
 oligosaccharides.
 AB The present invention relates to low molecular weight chitosan
 oligosaccharides and its preparation method. Chitosan
 oligosaccharides were obtained under microwave irradiation
 assisted the electrolyte. The method of preparing chitosan
 oligosaccharides was described as follows: acid solvent
 containing electrolyte was added to chitosan. The reaction was performed
 at 480800 W for 312 min. After irradiation ceased, the reaction liquid
 was cooled to room temperature. Then the solution was adjusted to
 neutrality with 110 M NaOH or KOH and obtained the pale yellow floc. The

processes of precipitation, filtering, desiccation and crushing are settled sequentially. Finally, chitosan oligosaccharides were obtained. Method of the present invention makes chitosan degrade to water-soluble chitosan oligosaccharides and it makes some inert substance become active. The method of the present invention can cut down energy consumption, decrease pollution and save time and raw materials. It has applying perspective of industry and potentiality of extensive market.

CLMN 11 7 Figure(s).

FIG. 1 is a FTIR spectrum of chitosan.
 FIG. 2 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under acid solvent containing NaCl.
 FIG. 3 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under acid solvent containing KCl.
 FIG. 4 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under acid solvent containing CaCl₂.
 FIG. 5 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under pure acid solvent.
 FIG. 6 is a 1H NMR spectrum of low molecular weight chitosan oligosaccharides.
 FIG. 7 is a characteristic structure of chitosan oligosaccharides.

L30 ANSWER 6 OF 6 USPATFULL on STN

AN 2007:104016 USPATFULL

TI Low molecular weight chitosan oligosaccharides and its preparation method

IN Li, Pengcheng, Shandong, CHINA

Xing, Rong, Shandong, CHINA

Liu, Song, Shandong, CHINA

Yu, Huahua, Shandong, CHINA

PA INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES, Shandong, CHINA, 266071 (non-U.S. corporation)

PI US 2007089978 A1 20070426

AI US 2003-560296 A1 20031008 (10)

WO 2003-CN847 20031008

20051212 PCT 371 date

PRAI CN 2003-138817 20030716

DT Utility

FS APPLICATION

LREP SMITH, GAMBRELL & RUSSELL, 1850 M STREET, N.W., SUITE 800, WASHINGTON, DC, 20036, US

CLMN Number of Claims: 11

ECL Exemplary Claim: 1

DRWN 3 Drawing Page(s)

LN.CNT 395

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to low molecular weight chitosan oligosaccharides and its preparation method. Chitosan oligosaccharides were obtained under microwave irradiation assisted the electrolyte. The method of preparing chitosan oligosaccharides was described as follows: acid solvent containing electrolyte was added to chitosan. The reaction was performed at 480.about.800 W for 3.about.12 min. After irradiation ceased, the reaction liquid was cooled to room temperature. Then the solution was adjusted to neutrality with 1.about.10 M NaOH or KOH and obtained the pale yellow floc. The processes of precipitation, filtering, desiccation and crushing are settled sequentially. Finally, chitosan oligosaccharides were obtained. Method of the present invention makes chitosan degrade to water-soluble chitosan oligosaccharides and it makes some inert substance become

active. The method of the present invention can cut down energy consumption, decrease pollution and save time and raw materials. It has applying perspective of industry and potentiality of extensive market.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s Yu Huahua/AU
'AU' IS NOT A VALID FIELD CODE
'AU' IS NOT A VALID FIELD CODE
L31 100 YU HUAHUA/AU

=> s l31 and (chitosan(a)oligo?)
L32 6 L31 AND (CHITOSAN(A) OLIGO?)

=> dis l32 1-6 bib abs

L32 ANSWER 1 OF 6 BABS COPYRIGHT 2008 BEILSTEIN MDL on STN
AN 6516228 BABS
TI Salt-assisted acid hydrolysis of chitosan to oligomers under microwave irradiation
AU Xing, Rong; Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo; Li, Cuiping; Li, Zhien; Li, Pengcheng
SO Carbohydr. Res. (2005), 340(13), 2150 - 2153
CODEN: CRBRAT
DT Journal
AN 6516228 BABS
AB The effect of inorganic salts such as sodium chloride on the hydrolysis of chitosan in a microwave field was investigated. While it is known that microwave heating is a convenient way to obtain a wide range of products of different molecular weights only by changing the reaction time and/or the radiation power, the addition of some inorganic salts was shown to effectively accelerate the degradation of chitosan under microwave irradiation. The molecular weight of the degraded chitosan obtained by microwave irradiation was considerably lower than that obtained by traditional heating. Moreover, the molecular weight of degraded chitosan obtained by microwave irradiation assisted under the conditions of added salt was considerably lower than that obtained by microwave irradiation without added salt. Furthermore, the effect of ionic strength of the added salts was not linked with the change of molecular weight. FTIR spectral analyses demonstrated that a significantly shorter time was required to obtain a satisfactory molecular weight by the microwave irradiation-assisted inorganic salt method than by microwave irradiation without inorganic salts and conventional technology.

L32 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:1023995 CAPLUS
DN 142:299712
TI Microwave degraded chito-oligosaccharide compound and its preparation
IN Li, Pengcheng; Xing, Rong'e; Liu, Song; Yu, Huahua
PA Institute of Oceanography, Chinese Academy of Sciences, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	CN 1473857	A	20040211	CN 2003-138817	20030716
	WO 2005007702	A1	20050127	WO 2003-CN847	20031008
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CO,				

CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU	2003275508	A1	20050204	AU	2003-275508	20031008
US	20070089978	A1	20070426	US	2005-560296	20051212
PRAI	CN 2003-138817	A	20030716			
	WO 2003-CN847	W	20031008			

AB The method comprises dissolving chitosan in an acidic NaCl (KCl, or CaCl₂) electrolyte solution to obtain a viscous liquid, degrading the liquid via microwave irradiation (400-800W) for 3-12 min, neutralizing, precipitating at 4°, drying at 60°, and grinding to 20-100 mesh.

L32 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:830847 CAPLUS

DN 142:23434

TI Preparation of low-molecular-weight and high-sulfate-content chitosans under microwave radiation and their potential antioxidant activity in vitro

AU Xing, Rong; Liu, Song; Yu, Huahua; Zhang, Quanbin; Li, Zhien; Li, Pengcheng

CS Institute of Oceanology, The Chinese Academy of Sciences, Qingdao, 266071, Peop. Rep. China

SO Carbohydrate Research (2004), 339(15), 2515-2519
CODEN: CRBRAT; ISSN: 0008-6215

PB Elsevier B.V.

DT Journal

LA English

AB In the present paper microwave radiation has been used to introduce N-sulfo and O-sulfo groups into chitosan with a high degree of substitution and low-mol. weight. The sulfation of chitosan was performed in microwave ovens. It was found that microwave heating is a convenient way to obtain a wide range of products of different degrees of substitution and mol. weight only by changing reaction time or/and radiation power. Moreover, microwave radiation accelerated the degradation of sulfated chitosan, and the mol. weight of sulfated chitosan was considerably lower than that obtained by traditional heating. There are no differences in the chemical structure of sulfated chitosan obtained by microwave and by conventional technol. FTIR and ¹³C NMR spectral analyses demonstrated that a significantly shorter time is required to obtain a satisfactory degree of substitution and mol. weight by microwave radiation than by conventional technol. In this present paper, we also determined antioxidant activity of low-mol.-weight and high-sulfate-content chitosans (LCTS). The results showed LCTS could scavenge superoxide and hydroxyl radical. Its IC₅₀ is 0.025 and 1.32 mg/mL, resp. It is a potential antioxidant in vitro.

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 4 OF 6 COMPENDEX COPYRIGHT 2008 EEI on STN

AN 2005(35):3706 COMPENDEX

TI Salt-assisted acid hydrolysis of chitosan to oligomers under microwave irradiation.

AU Xing, Rong (Institute of Oceanology Chinese Academy of Sciences, Qingdao 266071, China); Liu, Song; Yu, Huahua; Guo, Zhanyong; Wang, Pibo; Li, Cuiping; Li, Zhien; Li, Pengcheng

SO Carbohydrate Research v 340 n 13 Sep 26 2005 2005.p 2150-2153

CODEN: CRBRAT ISSN: 0008-6215

PY 2005

DT Journal

TC Experimental

LA English

AN 2005(35):3706 COMPENDEX

AB The effect of inorganic salts such as sodium chloride on the hydrolysis of chitosan in a microwave field was investigated. While it is known that microwave heating is a convenient way to obtain a wide range of products of different molecular weights only by changing the reaction time and/or the radiation power, the addition of some inorganic salts was shown to effectively accelerate the degradation of chitosan under microwave irradiation. The molecular weight of the degraded chitosan obtained by microwave irradiation was considerably lower than that obtained by traditional heating. Moreover, the molecular weight of degraded chitosan obtained by microwave irradiation assisted under the conditions of added salt was considerably lower than that obtained by microwave irradiation without added salt. Furthermore, the effect of ionic strength of the added salts was not linked with the change of molecular weight. FTIR spectral analyses demonstrated that a significantly shorter time was required to obtain a satisfactory molecular weight by the microwave irradiation-assisted inorganic salt method than by microwave irradiation without inorganic salts and conventional technology. \$PCY 2005 Elsevier Ltd. All rights reserved. 22 Refs.

L32 ANSWER 5 OF 6 IFIPAT COPYRIGHT 2008 IFI on STN

AN 11439913 IFIPAT;IFIUDB;IFICDB

TI LOW MOLECULAR WEIGHT CHITOSAN OLIGOSACCHARIDES AND ITS PREPARATION METHOD

INF Li; Pengcheng, Shandong, CN

Liu; Song, Shandong, CN

Xing; Rong, Shandong, CN

Yu; Huahua, Shandong, CN

IN Li Pengcheng (CN); Liu Song (CN); Xing Rong (CN); Yu Huahua (CN)

PAF INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES, Shandong, 266071, CN

PA INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES CN

PPA Institute of Oceanology Chinese Academy of Sciences CN (Probable)

AG SMITH, GAMBRELL & RUSSELL, 1850 M STREET, N.W., SUITE 800, WASHINGTON, DC, 20036, US

PI US 2007089978 A1 20070426

AI US 2003-560296 20031008

WO 2003-CN847 20031008

20051212 PCT 371 date

20051212 PCT 102(e) date

PRAI CN 2003-138817 20030716

FI US 2007089978 20070426

DT Utility; Patent Application - First Publication

FS CHEMICAL

APPLICATION

ED Entered STN: 26 Apr 2007

Last Updated on STN: 7 May 2007

CLMN 11

GI 7 Figure(s).

FIG. 1 is a FTIR spectrum of chitosan.

FIG. 2 is a FTIR spectrum of low molecular weight chitosan

oligosaccharides obtained under acid solvent containing NaCl.

FIG. 3 is a FTIR spectrum of low molecular weight chitosan

oligosaccharides obtained under acid solvent containing KCl.

FIG. 4 is a FTIR spectrum of low molecular weight chitosan

oligosaccharides obtained under acid solvent containing CaCl2.

FIG. 5 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under pure acid solvent.
FIG. 6 is a 1H NMR spectrum of low molecular weight chitosan oligosaccharides.

FIG. 7 is a characteristic structure of chitosan oligosaccharides.

AB The present invention relates to low molecular weight chitosan oligosaccharides and its preparation method. Chitosan oligosaccharides were obtained under microwave irradiation assisted the electrolyte. The method of preparing chitosan oligosaccharides was described as follows: acid solvent containing electrolyte was added to chitosan. The reaction was performed at 480800 W for 312 min. After irradiation ceased, the reaction liquid was cooled to room temperature. Then the solution was adjusted to neutrality with 110 M NaOH or KOH and obtained the pale yellow floc. The processes of precipitation, filtering, desiccation and crushing are settled sequentially. Finally, chitosan oligosaccharides were obtained. Method of the present invention makes chitosan degrade to water-soluble chitosan oligosaccharides and it makes some inert substance become active. The method of the present invention can cut down energy consumption, decrease pollution and save time and raw materials. It has applying perspective of industry and potentiality of extensive market.

CLMN 11 7 Figure(s).

FIG. 1 is a FTIR spectrum of chitosan.
FIG. 2 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under acid solvent containing NaCl.
FIG. 3 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under acid solvent containing KCl.
FIG. 4 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under acid solvent containing CaCl2.
FIG. 5 is a FTIR spectrum of low molecular weight chitosan oligosaccharides obtained under pure acid solvent.
FIG. 6 is a 1H NMR spectrum of low molecular weight chitosan oligosaccharides.
FIG. 7 is a characteristic structure of chitosan oligosaccharides.

L32 ANSWER 6 OF 6 USPATFULL on STN

AN 2007:104016 USPATFULL

TI Low molecular weight chitosan oligosaccharides and its preparation method

IN Li, Pengcheng, Shandong, CHINA

Xing, Rong, Shandong, CHINA

Liu, Song, Shandong, CHINA

Yu, Huahua, Shandong, CHINA

PA INSTITUTE OF OCEANOLOGY CHINESE ACADEMY OF SCIENCES, Shandong, CHINA, 266071 (non-U.S. corporation)

PI US 2007089978 A1 20070426

AI US 2003-560296 A1 20031008 (10)

WO 2003-CN847 20031008

20051212 PCT 371 date

PRAI CN 2003-138817 20030716

DT Utility

FS APPLICATION

LREP SMITH, GAMBRELL & RUSSELL, 1850 M STREET, N.W., SUITE 800, WASHINGTON, DC, 20036, US

CLMN Number of Claims: 11

ECL Exemplary Claim: 1

DRWN 3 Drawing Page(s)

LN.CNT 395

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to low molecular weight chitosan oligosaccharides and its preparation method. Chitosan oligosaccharides were obtained under microwave irradiation assisted the electrolyte. The method of preparing chitosan oligosaccharides was described as follows: acid solvent containing electrolyte was added to chitosan. The reaction was performed at 480.about.800 W for 3.about.12 min. After irradiation ceased, the reaction liquid was cooled to room temperature. Then the solution was adjusted to neutrality with 1.about.10 M NaOH or KOH and obtained the pale yellow floc. The processes of precipitation, filtering, desiccation and crushing are settled sequentially. Finally, chitosan oligosaccharides were obtained. Method of the present invention makes chitosan degrade to water-soluble chitosan oligosaccharides and it makes some inert substance become active. The method of the present invention can cut down energy consumption, decrease pollution and save time and raw materials. It has applying perspective of industry and potentiality of extensive market.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> dis hist

(FILE 'HOME' ENTERED AT 13:18:58 ON 03 APR 2008)

FILE 'APOLLIT, BABS, CAPLUS, CBNB, CIN, COMPENDEX, DISSABS, EMA, IFIPAT, NTIS, PASCAL, PROMT, RAPRA, SCISEARCH, TEXTILETECH, USPATFULL, USPATOLD, USPAT2, WPIFV, WPINDEX, WSCA, WTEXTILES, MEDLINE, EMBASE, BIOSIS' ENTERED AT 13:19:26 ON 03 APR 2008

L1 115917 S CHITOSAN
L2 10733 S L1 AND (RADIATION OR IRRADIATION OR MICROWAVE)
L3 6604 S L2 AND (ELECTROLYTE OR CHLORIDE)
L4 3760 S L3 AND OLIGO?
L5 1800 S L2 AND MICROWAVE
L6 1176 S L5 AND (CHLORIDE OR ELECTROLYTE)
L7 1159 S L5 AND CHLORIDE
L8 1377 S L5 AND (SODIUM OR POTASSIUM OR CALCIUM OR IRON OR FERRIC)
L9 1326 S L8 AND ACID?
L10 905 S L9 AND (MOLECULAR(A)WEIGHT)
L11 3 S L10 AND (DEGREE(A)POLYMERIZ?)
L12 5892 S CHITOSAN(S)OLIGO?
L13 151 S L12 AND MICROWAVE
L14 113 S L13 AND (ELECTROLYTE OR CHLORIDE)
L15 112 S L14 AND ACID
L16 0 S L15 AND (DEGREE(W)POLYMER?)
L17 90 S L15 AND (DEGREE(S)POLYMER?)
L18 48 S L17 AND DA
L19 2691 S CHITOOLIGO?
L20 136 S L19 AND (DA OR DALTON)
L21 89 S L20 AND DEGREE
L22 58 S L21 AND (METHOD OR PROCESS)
L23 313 S LI PENGCHENG/AU
L24 121 S L23 AND CHITOSAN
L25 14 S L24 AND OLIGO?
L26 143 S XING RONGE/AU
L27 107 S L26 AND CHITOSAN
L28 12 S L27 AND OLIGO?
L29 680 S LIU SONG/AU
L30 6 S L29 AND (CHITOSAN(A)OLIGO?)
L31 100 S YU HUAHUA/AU

